

## Where does virulence evolve?

Just about everywhere we look, we see pathogens evolving towards attenuation. Pathogens evolve to be less deadly because the individuals that quickly kill their hosts don't get far, and don't spread as well as the individuals that barely sicken their hosts. [So why then does virulence evolve? Why do some pathogens evolve "backwards" towards virulence and deadliness?](#)

The simple answer is that the virulence is not for the pathogen's host, but for the host's predators. In other words, virulence evolves as a sort of infectious venom that protects animals from predators. Here in this protective role, the more deadly the pathogen is, the more it is rewarded by nature. And this is why some pathogens evolve "backwards" towards virulence and deadliness.

## The flight-based, disease network of bats

70% of the world's 1,240 bat species are insectivores. Every night, these bats fly out over a wide area and eat insects that often have fresh mammal blood on them. Then every day, the bats come home to a sleeping-huddle (the opposite of social distancing) and share the diseases they picked up.

Some days later, most bats from the colony go out infected, across the bat territory. Then some of the frail bats get grabbed and eaten while on the ground. Then perhaps their blood infects, or they bite back, or hiss infectious mist, and complete an infection cycle. Then these bats become an inter-species disease vector for mammalian blood and airway diseases.

So one bat eats one bloody corpse insect—then some days later, most of the bats in the huddle go out infected across the bat colony's territory. And this can be an area over 100-km in radius — because this is how far bats sometimes range. It is a huge area of up to 31,400 sq. km.

But it doesn't stop there, because bat territories overlap. So on top of rapidly dispersing diseases in their own territory, bats also help diseases to hop between territories. And this occurs at a speed that approaches 200-km divided by the disease's incubation period. So, huddling bats create a flight-based network for greatly accelerating the spread of mammalian blood and respiratory diseases.

Here above are two illustrations of "leap networks", the blue lines, the "local links" schematically represents the way diseases would spread without bats. The green lines, the "leap links" schematically represent how flying bats help diseases rapidly leap ahead to new areas. Bats are notably unique in this leap network role for mammalian diseases.

## NIH list of over 200 diseases carried by bats

On this list we find: hantavirus, MERS, SARS, COVID marburg, ebola, west nile, yellow fever, hepatitis B and C, herpesvirus, cytomegalovirus, influenza virus A, papillomavirus, rubulavirus, mumps, pneumovirus, rabies, chikungunya virus, and all 4 coronavirus common cold viruses. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4371215/>

## Discover magazine article

["Bats are the source of more dangerous viruses than any other mammal. ...Ebola, SARS, Marburg, Nipah and more have been traced to the world's only mammal capable of sustained flight... bats harbor a significantly higher proportion of zoonotic viruses than all other mammalian orders"](https://www.discovermagazine.com/health/why-bats-are-breeding-grounds-for-deadly-diseases-like-ebola-and-sars) <https://www.discovermagazine.com/health/why-bats-are-breeding-grounds-for-deadly-diseases-like-ebola-and-sars>

## NIH article on bat diseases

["a daily cycle that elevates metabolism and body temperature analogous to the febrile \[fever\] response in other mammals."](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4012789/)

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## Bat body temperature in flight gets up to 108°F (42.1°C)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4012789/table/T1/?report=objectonly>

["During flight, bats rev up their metabolic rate 15 times to 16 times higher than non-flying bats. That raises their body temperature to between 100 degrees and nearly 106 degrees Fahrenheit, the equivalent of a pretty high fever in humans."](http://www.nbcnews.com/health/health-news/new-clue-found-why-bats-spread-viruses-dont-get-sick-n81321) [www.nbcnews.com/health/health-news/new-clue-found-why-bats-spread-viruses-dont-get-sick-n81321](http://www.nbcnews.com/health/health-news/new-clue-found-why-bats-spread-viruses-dont-get-sick-n81321)

## Bats run a fever of 106°F daily

The animals that operate the mammalian disease spreading network run fevers of 106°F (41.1°C) daily. And these sometimes get up to 108°F (42.2°C).

## Fast bat metabolisms

Due to the energy needs of flight, bat metabolisms are already running fast. So it appears that bats are able to "outrun" most pathogens. These don't affect the high metabolism bats as much as slower metabolism animals that don't fly. So it appears that bats are mostly immune to the diseases that kill the other mammals.

## Why do bats huddle?

It is widely thought that bats huddle to conserve heat. But then why do bats huddle in so many tropical places? Why is it normal for bats to huddle in shallow equatorial caves if they huddle to conserve heat?

Perhaps bats huddle because it helps them share protective diseases — protective for the bats and harmful for many other mammals.

And because these diseases were beneficial to the bats, nature favored the bats that huddled and clustered close to better share their protective diseases. This way, when one bat discovered and brought back a new pathogen weapon, all the bats in that cave did better.

### **Why bats are vector #1 for mammalian diseases**

Canine packs contact lots of animal blood. But how many individuals are there in a wolf pack compared with a cave bat colony of 20-million bats like in the Bracken Cave? And wolf packs only roam about 30km a day. So the bat colony covers about 1,000 times the area of the wolf pack. And there may be hundreds of rats in a colony, but the territory is only about 100-meters in radius. And while birds do cover a large territory, and some species nest together, they have substantially different metabolisms. Therefore birds don't work well as a vector between mammals.

So for zoonotic diseases jumping between and infecting mammals (including humans): Bats (the only flying and huddling mammals) seem to be responsible for nearly all virulence. And particularly, the bats that huddle closely in great numbers — because these have the greatest network effect in evolving and spreading diseases. If we take away the bat colonies, we might halt the evolution of 90% of the pathogens plaguing mankind. Even the semi-benign viruses that are merely causing us to age and wear out a bit faster.

### **The giraffe's neck — the Cheetah's speed**

Many animals have a special adaptations. With bats, part of their's seems to be evolving and spreading protective diseases. The frail bats might not be viable without their protective diseases.

### **Rabies is somebody's venom**

That Rabies both kills and spread via bites strongly suggests that it is some animal's venom. Which species is that? Which mammal species benefits most from rabies? Which animal can live longest with rabies?

### **Rabies: It's got what bats need**

Always deadly Rabies is exactly the sort of pathogenic "venom" that fragile bats need for protection from the much stronger animals that might grab them on the ground. In other words, the diseases that best protect bats from predators are the best venom for bats. So evolution favors deadly diseases for bat predators. And this is certainly part of why Rabies is always deadly.

### **Metcalf's law: Bigger networks evolve exponentially faster**

The giant cave-bat networks of up to 20-million bats rival mankind as the largest daily-contact mammalian networks. But these are evolving in "reverse", and evolving diseases (like Rabies) towards virulence. And aside from humans, there are simply no other mammalian

networks anywhere near the scale of a bat cave. Therefore huddling bats appear to be the main source of counter-attenuation and virulence and deadliness in mammalian diseases. This in addition to being the main interspecies vector for mammalian diseases.

### **Bats giving diseases back**

- 1/ Which bat species will never bite another animal even when it is dying of hunger?
- 2/ What if the bat is attacked, which species never bit back?
- 3/ What if the bat has rabies and is acting like a mad dog? Which species never bite?
- 4/ What happens to animals that eat a rabid bat? What happens to the various animals that the bat sneezes next to, due to its lingering coronavirus "cold"?

### **Cats, raccoons, foxes, and skunks**

These are the four animals (in the US) most likely to be rabid. All are nocturnal and might grab a bat.

### **Stressed vampire bats bite each other**

Here is a study where a reduction in food caused a population of vampire bats to all bite each other. In fact, they bit each other so many times that they lost much of the hair from their heads and shoulders. The inference is that when vampire bats get hungry, they stop merely carrying blood infections themselves. Instead, they seem to all bite each other and pool whatever infections have arisen in their group, from each individual's contacts and stress response. Notably, they bite each other repeatedly, assuring that the diseases are spread around well. Is this behavior unique to vampire bats, or can we induce it in other bat species under extreme food stress? <https://academic.oup.com/jmammal/article-abstract/40/3/439/849328?redirectedFrom=fulltext>

### **Incriminating behavior**

The bat species that bite each other repeatedly under stress and pool diseases certainly seem to be using germ warfare against all the other mammals.

### **Flugacious flues**

The flu is "flugacious" or fugacious=fleeting, sometimes returning once in decades. So the inference is that we have probably not found all the diseases carried by bats. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4371215/>

### **The pathogens keep trying all their old keys And the bats are flying them around**

All pathogens are constantly trying their keys on all the doors of all the animals they contact. The more doors they knock on, the more likely it is that they eventually evolve a new key that gets them in.

### **The pathogens have their own agenda**

After enough inter-species introductions thanks to their bat vectors, the pathogens eventually evolve to spread

among a new species. Then once they start spreading, they start re-attenuating to spread better in their new host species. So pathogens seem to evolve one way (towards virulence) among bats, and then they evolve the other way (away from virulence and towards attenuation) among most other "normal" hosts.

### **The counter-attenuation, re-attenuation cycle**

The diseases become more virulent in bats and they become less virulent and more attenuated when they are out among the other mammals. This repeated cycle seems to be responsible for most evolution in mammalian pathogens.

### **Bats, famine and drought**

In droughts, it isn't just the output of human crops and livestock that suffers. In drought years, there is also less overall plant, animal, and insect life. So the insect and blood eating bats tend to be hungrier. Then their infections tend to re-surface due to the hunger stress. Also, bats crazed with hunger are probably more fearless and irregular about what they will try to eat/bite. And with many animals gone, the remaining animals get bitten more by the bats, which are also more virulent. And all this is on top of the reduced immune response in malnourished animals/people.

### **Bat, pangolin, civet cat, or what?**

If a disease exists in several species including bats, the bats are probably the main interspecies vector — the hub vector. Bats after all, are quite adapted for that role due their high metabolisms, huddling and nightly contact with bloody insects.

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### **How to stop any insect-borne epidemic**

Chrysanthemum has been a part of Chinese medicine for over 3,500-years, so it appears to be relatively safe. Chrysanthemum contains natural pyrethroids, a powerful insect neurotoxin that kills blood sucking insects before they can reproduce. And because insects have different organs and metabolisms, what is "nerve gas" to insects can be relatively harmless to vertebrates.

So if people take a small and mostly harmless amount of Chrysanthemum flower, their blood can be made deadly to the insects biting them. And if all the animals of a community takes this natural insecticide, it will stop the mosquito epidemic in one mosquito life cycle (4-5 weeks).

Today millions of people inject micro-doses of deadly botulism toxin (botox) for vanity. Perhaps our infectious disease arsenal should also include micro-doses of insect poison to stop raging insect-borne epidemics.

### **The pesticides are much less deadly than the insect diseases**

Insect-borne diseases kill over on-million people a year. On the other hand, we never hear of any agricultural-worker pesticide exposure syndrome. Surely the people applying the pesticides have thousands of times higher exposure. If pesticides are so dangerous, why don't we see a syndrome among agricultural workers? Clearly the insect diseases are a much greater health risk than the pesticides.

### **Insecticide prophylaxis risk**

What difference does it make how we stop malaria from killing 400,000 people a year? And if we can accept a certain negative outcome ratio for a COVID vaccine, then surely we can accept a similar negative outcome ratio for taking micro-doses of insecticide.

### **Get blood — mate — find water — lay eggs**

Where mosquitos have access to both blood and water, they become intolerable. Denying them water to lay their eggs completely halts their reproduction in many dryer places. However, there are still wetter places where this will not work. In these places, we can use chrysanthemum extract or a synthetic pyrethroid to interfere with the mosquito's ability to survive its meals and reproduce.

### **Why are insect-borne epidemics getting worse?**

- **Why are cases increasing?**
- **Why are territories expanding?**

Aside from global warming, nobody has a good reason for why this is happening. Here's a reason: It is due to the natural food movement, and how now farmers are:

- 1/ Not using insecticides.
- 2/ Using insecticides that break down quickly, before people can eat them.
- 3/ Using less insecticide because it is the "right" thing to do.

So today we all have lower levels of insecticide residue in our blood than in recent decades. Now more of the insects biting us are living to lay more infected eggs.

### **Pesticide residue as protector**

Improved drainage & sewers get most of the credit for totally protecting the rich nations from insect-borne diseases. But even the famously clean and organized city-state of Singapore — a mere 31 x 17 miles in size — has mosquitos nearly everywhere. So how do we get total disease protection from partial mosquito control? Maybe we don't. Maybe it is not improved sanitation that has protected the modern world from mosquito disease. Maybe it is the pesticide residue in our blood that is protecting us.

Maybe the simplest thing we can do to reduce malaria deaths is to use pesticides that don't break down so fast. Thus everyone has pesticides in their blood. Either that,

or people take measured milligram doses of pesticides by pill if everyone will take them.

### **An experiment**

Get 400 volunteers. For a weeks, expose them as follows:

- 1/ Give 100 of them fresh vegetables that were normally sprayed in the fields with the old pesticides.
- 2/ Give another 100 of them fresh vegetables that were normally sprayed in the fields with new pesticides.
- 3/ Give 100 of them a cup of chrysanthemum tea daily.
- 4/ Give 100 of them nothing as control group.

At the end of 3, 7, and 14-days, expose all 100 to three hungry mosquitoes each. Take the visibly full mosquitoes and house them in their own individual jars, with water for laying eggs. Which mosquitos die before they can lay viable eggs? How much chrysanthemum and other pesticides are needed to kill 100% of the mosquitoes?

### **Bug poison as anti-epidemic treatment**

If we can harmlessly keep a tiny residue amount of insecticide in our blood for some months, and the alternative is to suffer a multi-year insect-vectored plague, why not take a little relatively harmless bug poison? At least we should have the tool in our arsenal for when people are dying in great numbers from one of the many insect borne diseases.

### **Dosage**

It is the lowest dose where 100% the mosquitos biting people die. Any less than this and we lose protection from blood sucking insects. We also breed insecticide resistance. Any more than this and we suffer unnecessary chemical exposure.

### **Pesticides as drugs**

People take lots of toxic chemicals as drugs, for example: chemotherapy drugs for cancer, and toxic antibiotics for MRSA. We take these strong and sometimes deadly chemicals because experience shows that they are less harmful than the thing killing us. The same mental model should be used for insecticides — especially the insecticides that protect us from the diseases of blood sucking insects that kill over 400,000 people every year.

Many people think: “The less insecticide the better”. Yet it is worth repeating, there is no widespread syndrome associated with contact with pesticide residue. This in sharp contrast to the great and well documented harm that insect borne pathogens bring us, for example: malaria, dengue, lyme, zika, bubonic plague.

### **The mosquitos that die after biting people**

It is simple to test for toxicity to blood eating insects. All you need are people willing to get bitten:

- 1/ Are there people that kill most of the mosquitos biting them and others that do not kill them?

2/ What percent of the people kill the mosquitoes biting them in the various parts of the world? Why is this happening? What pesticide residues are causing this.

### **Ancient Greek chrys-anthemum = golden-flower**

#### **Pesticides in wild animals**

Is it such a bad thing that we expose the world’s animals to trace amounts of these relatively harmless chemicals that help prevent illness from the blood sucking insects that so often afflict them? Large numbers of grazing animals are already eating chrysanthemum flowers. What is the harm if we feed them each a handful of harvested flowers to kill the mosquitos biting them?

#### **Which harms more people?**

Pesticide traces in our food that have never been correlated to problems, or the millions that die from insect-borne disease annually, or the tens of millions that suffer from malnutrition?

#### **The animals around us**

We might also put the Chrysanthemum or another less harmful insecticide in “summer” pet food, deer corn, squirrel bait, and bird seed. We might also have it in watering troughs near our communities, so wild animals consume it. This will reduce mosquitoes, ticks, fleas, and lice. Near our cities, we might also drone-disperse fresh “wet” super-aromatic animal pellets that most animals find irresistibly delicious and can smell from some distance away. These have some Chrysanthemum, or maybe some other pesticides and anti-parasite drugs. Thus all the animals that eat these kill all the fleas, ticks and mosquitos that bite them. We imagine a ring of treated animals (wild and domesticated) around each community. Thus the community can substantially keep new mosquitoes out with this ring of animals protecting it.

#### **Blood-insect energy efficiency**

What happens to tick populations when 4 out of 5 ticks die before laying eggs due to insecticide in the blood they are consuming? Certainly cutting reproductive efficiency by 80% will cause ticks to die out entirely in many areas.

#### **Chrysanthemum is a symbiot**

To my mind, this plant did not evolve its natural insecticide to protect itself, but to protect the animals that would eat and spread its seeds. It is completely possible that this plant is entirely benign and harmless to vertebrates, but deadly to insects.

We should figure out if this plant harms animals in anyway and what doses are needed to harm animals. Let’s take a couple an isolated farming areas and feed all the animals a couple grams of Chrysanthemum every day in their feed. The same amount per kilo of bodyweight for each area. Then we track the animals to see if they suffered any problems in comparison to the control groups. I bet the communities that add chrysanthemum

have far fewer mosquitoes, and I also bet the animals suffer no harm. And furthermore I bet the animals that get Chrysanthemum actually weigh a tiny bit more. And if this is all real, we probably have a harmless pesticide for our bodies and the bodies of our livestock.

### **Chrysanthemum tea — a natural insecticide you drink**

In many parts of Asia, they drink Chrysanthemum tea. Chrysanthemum is the source of pyrethrum, an insecticide that is deadly to mosquitoes. Modern chemistry has synthesized this chemical in a number of variants that show little or no toxicity to mammals.

### **Chrysanthemum is a fruit**

The flower is essentially a drug fruit like marijuana, coffee, and opium. And like with these other drug plants, the animal-luring-fruit is not sweet and bio-energy expensive for the plant to produce. Instead, the plant offers milligrams of an energy “cheap” drug to benefit the creatures that disperse the plant’s seeds. Also, Chrysanthemum may have other valuable drugs in the background genome, like how Marijuana has THC CBD, and CBN.

### **TOBACCO vs. PYRETHRUM plants**

Both come from plants. In normal doses, pyrethrum is not harmful to vertebrates because the plant evolved as a symbiot. Tobacco on the other hand is known to have multiple chemicals in it that are extremely carcinogenic, as well as addictive chemicals. Tobacco is known to be harmful, while Pyrethrum, a pesticide has not been shown to cause any harm. Also, chrysanthemum and pyrethrum have been used in traditional Chinese medicine for thousands of years. What hypocrisy and foolishness it is that people religiously avoid all pesticides while they smoke. What a joke it is that we as a society allow our crop yields to be limited by unproven claims about pesticides, while at the same time, we allow people to puff their cancer sticks around others. According to the understatement of the corrupt WHO, second hand smoke kills 1.3-million people a year. How many people die from pesticides?

### **The salivary glands of blood insects**

Malaria migrates to the salivary glands of mosquitoes. We should look hard for other nasty pathogens here, in the salivary glands of the various blood sucking creatures.

### **Mosquito dining preferences**

Do mosquitoes prefer people who have a fever? What about people who are sick and have not fever? What do mosquitoes like, and what do they avoid in victims?

### **Where to look for undiscovered plant drugs**

1/ With marijuana, we see how evolution has caused a plants to evolve numerous animal drugs: THC, CBD and CBN among others.

2/ With tobacco, we see largely the same thing, although the tobacco family of drugs mostly seem to be poisons that have all adapted to addict and then kill tobacco symbiots for their fertilizer value.

3/ The same evolutionary pressures and paths that cause a plant to evolve one drug often cause the evolution of other similar drugs — as well as perhaps opposite or cancelling drugs.

4/ The best place to look for new drugs may not be deep in the Amazon jungle, but deep in the genomes of plants that already produce other drugs.

5/ There might be a good opioid-addiction drug in the poppy genome, as a sort of cancelling drug to the main opioid drug of the poppy.

### **Deadly malaria**

Malaria infected 214 million people in 2015 and killed more than 430,000.

### **Ancient Greek chrys-anthemum = golden-flower**

### **Profitable mosquitos**

In the Apple dictionary, under canopy, we see how Gr. KONOPOS = mosquito. There is also the A-NOPHELES mosquitoes which is famous for spreading malaria. ANOPHELES comes from Gr. NOPHELES = lucrative, profitable, fruitful or money making. So the mosquitoes that spread malaria are called “Profitable mosquitoes”.

### **Pyrethroid corn**

Given the number of carcinogens (malignant drugs) that have evolved in tobacco, it is hard to believe that anyone would be so dumb as to use ANY part of the tobacco genome in food plants. Yet it was widely done. What about the Chrysanthemum genome? That appears to be both more effective against insects and less toxic to mammals. What if we developed corn that had very low levels of pyrethroids in its leaves and husks, and perhaps none its seeds? How do the bugs get in to the seeds?

### **It works on all insect born disease**

Ingesting small amounts of insecticide works on all insect-borne diseases like malaria, yellow fever, dengue, zika, bubonic plague, lyme, etc.

### **If malarial people take chrysanthemum...**

It kills all the mosquitoes that bite them and then nobody else gets malaria from them.

### **Pimple and bug-bite cookers**

We need a sort of soldering iron with a tip that is almost the diameter of a dime. This is heated to above jacuzzi temperatures and the covered skin area thus gets heated and the skin bacteria killed from the heat, whether it is from an insect bite, or a pimple. Fast application has the greatest results.

### **Is Chrysanthemum safe?**

Here we have a plant that evolved this great symbiotic trick for the animals that eat it. It knocks down the herd-following blood-sucking bugs when the herds eat the plant. Then these herds prosper and the Chrysanthemum develops herds of seed dispersing symbiots to spread its seeds. The plant should have evolved to be safe for all animals:

- 1/ The plant was under pressure to evolve maximum insect protection with minimum harm and dosage.
- 2/ The plant was under pressure for its insecticide protection to bind and last as long as possible, so the seed spreading hosts got as far away as possible.
- 3/ The plant wanted its symbiots to come back repeatedly as a repeat customer.

### **Is chrysanthemum also a repellent?**

If people ingest chrysanthemum, then do mosquitos, fleas and ticks bite less? Can they detect the chrysanthemum in our blood? Can we take some chemical in chrysanthemum and use it as a repellent?

Certainly Chrysanthemum started out being safer than unchecked outdoor bugs in a marshy summer. But subsequently it should have evolved to be both deadlier to insects and safer to the plant's mammal symbiots. And especially the latter. Chrysanthemum has been optimized and re-optimized for countless migratory mammal species over many millions of years. So it would not be surprising if natural Chrysanthemum had one of the greatest differences between insect toxicity and mammal harmlessness of all the 1,000+ pyrethroids. It would also not be surprising if either some component of the current dominant variant of chrysanthemum also had insect repellent characteristics. It would also not be surprising if some defunct ancient variant was a strong insect repellent.

### **Insect repellent X-prize**

- 1/ The world could use more effective, longer-lasting, less staining, less stinky insect repellents and repellent tech that doesn't stink like diethyltoluamide.
- 2/ Everyone knows diethyltoluamide by its trademarked name DEET. DEET can no longer be a valid trademark because it has become the generic term for diethyltoluamide.

### **How long do pyrethroids last in the blood?**

- 1/ Pyrethrum binds with cloth and stays toxic to mosquitos for 6 weeks. So it seem like Chrysanthemum evolved to bind-with and stay in the body for a long time.
- 2/ We should study how the pyrethroids bond to the body, if it does that. If we understand this, we might be able to use much lower doses of "blood insecticides".
- 3/ It seems like the Chrysanthemum pyrethroids bind with blood cells. Do they bind with blood cells more than other cells? Which pyrethroids do this best?
- 4/ What other cells do Chrysanthemum pyrethroids bind with?

5/ Does taking Chrysanthemum repel insects in any way, or keep people from being bitten?

### **Lyme disease insecticide prophylaxis**

Lyme disease can't burden its tiny baby tick host very much, so it exists in utterly tiny quantities in the tick's gut. Then it takes some days for the lyme disease to grow a load in the tick's gut, and to migrate to the tick's salivary glands. If the new host's blood is poisonous to the tick, then it should be less likely that there will be lyme disease transmission. What about the other tick-born diseases?

### **Where do mosquitoes prefer to lay eggs?**

Once mosquitoes get their blood, what sort of environment do they fly to? Maybe we should figure this out and use the information to poison mosquito larva. It stands to reason that mosquitos lay eggs in the stinkiest part of the wet area. This is the part that stays wet and is full of bacteria, weapons for the mosquitoes to use. It may also have fewer fish predators.

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### **Pathogens that surf species.**

Infected host populations do die out, so pathogens that can move between species have a big advantage.

### **Inter-species infections = the new world**

A pathogen's survival imperative is to spread and infect as many individuals as possible. Every time a new species is infected, it is a hugely important event for the pathogen, an event akin to the human discovery of new continents.

### **Species surfing pathogens**

It seems that there are pathogens that specialize in being versatile and being able to jump from one species to another. That is their magic trick, and that is what has made them successful. Also, it would appear that most of these diseases (when mammalian) are heavily dependent on huddling bats to get between species.

### **Diversification and why pathogens kill**

In general, pathogens don't spread as well when they kill their hosts. A host walking around normally spreads/ disperses the pathogen much better than a stationary dead animal. However, a bit of a diversified strategy might also sometimes be beneficial in small amounts. This is apparently why many diseases kill a sliver fraction of the individuals they infect. If say 1% of infections die and are consumed by carnivores, scavengers, and then insectivores eating blood-filled corpse-insects — Then these blood eating mammals will frequently carry the pathogen off to a fresh new species to infect. So pathogens do often benefit greatly from killing a sliver fraction of their host species.

### **Why zoonotic diseases kill**

When pathogens kill, it is not normally to help the pathogen spread among the same species. Attenuation is normally how a pathogen spreads among the same species. Pathogens kill to spread to other species — mostly via the carnivores, scavengers, and insectivores that consume the blood of the dead host. In other words, Occasionally killing their hosts tends to lead to the zoonotic (zoo•nautical) jumps to metaphorical “new continents”.

### **Recessive genes**

The genomes of pathogens (like every other living thing) are always trying out their ancient and once useful tricks that have become recessive and occasionally expressed. So when pathogens jump to a new species, or infect a new population — over time they tend to try out all the old and once successful traits that have evolved to become occasionally expressed recessive variations. And most pathogens have a whole basket of these recessive traits to try out occasionally... because occasionally expressing these golden oldies in new combinations tends to lead to success in a new evolutionary niche much more than random mutation.

One old favorite trick of pathogens is to kill a few individuals in one of the many old and proven ways that have proven to be occasionally beneficial to the survival of the pathogen. And if this killing works better than not killing, the pathogen individuals with the killing trait become more of the species, the pathogen's species.

### **Symbiots vs. parasites**

When the pathogen graduates from parasite to symbiot, it can make its host produce vastly more copies of itself. In fact, the pathogen can turn its host-now-symbiot into a pathogen shedding and spreading/dispersing factory in direct proportion to the benefit that the pathogen gives to its host and symbiot. And this might boost reproductive output for the pathogen by several orders of magnitude. So achieving symbiosis is another sort of a new continent sort of thing for parasites.

### **Komodo dragons pathogen venom**

Komodo dragons (the big lizards of Indonesia) have a pathogen in their saliva that is always fatal if it enters the blood. This apparently helps the big slow low-metabolism reptile to prey on fast moving mammals. It also perhaps defends the reptiles as well from higher metabolism mammals.

### **Super-virulent diseases**

Normally diseases attenuate. However, some diseases do not attenuate, and instead go in the opposite direction towards being deadly. The reason for this is that the true host is immune, while the predators of the true host are not immune. For example, there is the Bubonic plague or “Black Death” In the desert planes of central Asia,

marmots were frequently the main prey animal. Here the marmots with a virulent strain of the bubonic plague killed their predators and out-survived the ones with a mild strain of the plague.

### **Counter-attenuated predator diseases**

Now what if a pathogen killed it's true host's predators (instead of its prey) and thus helped its true host to survive? Wouldn't this pathogen tend to evolve towards being always fatal?

So for secondary hosts that are the predators, or competitors of a primary host, the natural pressure towards attenuation can work backwards. And here is the main reason why nature evolves diseases that kill. This sort of relationship favors strains that are super-virulent to the other species — when this helps the pathogen's true host to survive. So bubonic plague was selected for virulence because it helped its true host (the marmots) to survive predators. And the same with Rabies, Ebola, etc.

### **Mild Bubonic plague**

Bubonic plague might have at least one attenuated and mild version. Maybe we can use this version to as a vaccine against the deadly form. Or maybe we can learn from it. Then again, when we do this, we might just be giving people the version that has attenuated to only attack late in life. And this is something we probably shouldn't be doing.

### **How do we know about the vaccine?**

How do we know that the jab isn't just a version that only attacks people once they get old? So they are perhaps saving 99.99% of people now, 20-40 years they will all die younger as a result of the vaccine. We don't really know this.

### **Syphilis**

Syphilis seems to have evolved to infect the mouth and eyes of predators and their families and sexual partners and any conflict animals they encounter, and kill them. So bats look most likely involved with the creation and spawning of syphilis.

Also, all the brain and neurological diseases look like they may have evolved for bone cracking animals like hyenas and dogs. We must investigate these as carriers of attenuated neurologic diseases. Also, which diseases are less prevalent in places that simply do not have dogs?

### **Bat caves and malaria's virulence**

The reason why Malaria evolves so fast is that it has its own multi-ring evolutionary circus. It is evolving in most sorts of animal from earthworms to mammals. Malaria is also evolving in the mosquitos. But only one of these hosts (bats) drives towards virulence. So if we eliminate the giant bat colonies, malaria will still evolve fast, but there will be no more virulent strains of malaria coming

out, and over the coming decades, the disease will become less and less deadly and less and less debilitation. Also, if we eliminate one dimension of a 3-part network, we might take a cubic adaptation function and turn it into a squared adaptation function, and greatly slow the overall adaptability of malaria. And yes certainly the 3rd network (bats) are a subset of the 2nd network, but there is probably a great deal of pathogenic conjugation in bats (conjugation = non-sexual sharing of genes among micro-organisms).

### **Sickle cell anemia and bat caves**

Implicit in the whole sickle cell anemia value proposition is that the defective blood cells protect from deadly disease. For why evolve to always be sick unless it actually saves lives on average. So we are probably talking about deadly mosquito diseases and this implicates bats. So what is the bat cave overlap on a map? Is sickle cell anemia generally more prevalent where there are large caves of bats? What other location specific pathogens are generally more prevalent around giant bat caves?

### **The complete Bat and Mosquito genomes**

We really should sequence all the bats and all the mosquitoes and all the many other life forms they carry. There is a primary Bat genome, and there is a secondary bat genome with all the many symbiots and parasites. The same for the Mosquitos.

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### **CAP diseases = Counter-attenuated predator diseases**

#### **Always fatal blood diseases**

Rabies, Ebola, Hepatitis, HIV, and TB all eventually kill their hosts, and all attenuation only delays death.

#### **Komodo dragon saliva pathogen**

Maybe we should survey the salivary glands of the entire animal kingdom for pathogens. I bet we find salivary gland pathogen DNA in many forms of cancer.

#### **Our salivary “symbiots”**

According to Scientific American, *Fusobacterium nucleatum*, lives “harmlessly” in the gums of humans until sometimes it seems to have a role in helping some cancers to become metastatic. So this pathogen does two things that make it look like an attenuated CAP disease: A/ it lives in the mouth, and B/ it kills.

#### **Predator diseases migrate to the biting teeth**

Like with Rabies, many predator diseases tend to “migrate” to the salivary glands, mouth, and periodontal area. Basically they have evolved to go where they are most likely to be dispersed properly.

### **Where to find CAP disease**

Many seem to “migrate” to the salivary glands where they can infect new hosts with minimal burden to their current host. Diseases of the salivary glands, mouth and throat are all implicated as being pathogenic. Mumps in particular seems to be a predator disease. Also glandular lymphoma seems to have been caused by a predator disease.

### **Migration to the salivary glands**

More accurately, the pathogen goes everywhere and the immune system kills it... everywhere except the one place it helps the host to survive. So the bat lines that kept the protective pathogen infection in their mouths tended to thrive more than those that did not.

### **Rabies is somebody’s symbiot**

That Rabies both kills and spread via bites strongly suggests that it is some animal’s venom. Which species is that? Which mammal species benefits most from rabies?

### **Ebola and the opportunistic predator**

Ebola is both blood borne and counter-attenuated. If we intersect these two facts, we see a pathogen that evolved to protect animals from new predators. Ebola kills 90% of its victims because these are not its true host, but the predators of its true host. This is how Ebola evolved to become such a deadly venom for its true host.

### **A good compass**

Which bats are most immune to rabies? Which bats are most immune to the other various diseases that plague people? Collect some of each species. Infect a couple. Lock them up for a time. What percent of the other bats get infected after X days? This is such an easy compass, and it gives hard numbers and a topography that points right to the most problematic species.

### **Worse at night**

It’s just a hunch, but I wouldn’t be surprised if 95% of the diseases that are worse at night are from bats, and a large portion of the disease that are worse during the day are also from bats.

### **Rabies madness and biting**

Rabies spread via saliva and blood. It also apparently spreads best when the host animal is walking around infected and “mad” for a while. First this is with no symptom, letting the animal do as usual for some time. Then after a while, rabies typically causes the host animal to change its behavior and go “mad” and act with bizarre aggressive, or fear. This way, the host animal bites lots of different animals in many species.

All these infected animals eventually die. In cats, this can be up to a year — a year of biting mice that often get away. Then the host become food for predators,



scavengers, and corpse insectivores. And any one of these animals might bring the disease back to its kind and infect many of them. So there are clearly some diseases like Rabies & Ebola that don't attenuate like "normal" because this impairs how well they spread as predator/ corpse/ blood diseases.

### **Why so many diseases hardly ever kill**

Dogs can follow individual people and prey animals by the faint residual smell they leave in the surroundings. Dogs can also sniff out particular diseases. They can also discern the healthy from the sick, and the sick from the dying. So dogs can probably also remember the smell of a pathogen on an animal that died of an infection. And after exposure to this particular smell, the dogs might carefully avoid this smell in the future. And doubtless many animals are a bit like this. This seems to be why so many diseases hardly ever kill. If many animals come across dead bodies, then they start to avoid carcasses that smell anything like that way. Then the pathogen can't spread.

### **Fruit bats also carry deadly diseases**

1/ Marburg virus has been isolated in fruit bats.  
2/ Nipah virus is spread when fruit bats lick and urinate on date palm sap. Humans become infected when they consume the raw infected date palm sap. Nipah kills 70% of its victims. So here with Nipah virus is an example of a CAP disease carried by fruit bats.

### **Does bird flue come from bats?**

Bird flue is what bats need, it eliminates bat competitors and predators.

### **Why kill the old pt. 1?**

Maybe it is not simply that the old are weaker and die easier. Maybe it is also that the old have more varied smells. Maybe pathogens have been conditioned by their environment to kill the old because it is harder to discern the smell of the pathogen. Thus the pathogen can kill more without causing animals to avoid its smell.

### **Why kill the old pt. 2?**

1/ Old animals have already reproduced, and their death does not matter as much from the standpoint of a parasite not-burdening its hosts.  
2/ Killing the old animals may be symbiotic, especially if they are old, or male. This appears to be part of why males die 18.6% younger than females in many mammals, and 8% younger in humans.

### **Why kill the old pt. 3?**

Pathogen attenuation until a sudden death in late life. Pathogens definitely benefit from their hosts going around and acting as a mobile shedding and dispersal platform for as long as possible. However once the host starts nearing the end of life, there are significant benefits to the pathogen if the host dies with a super-high "viral load"

and also if this happens during a period of peak stress, such as during an interaction with a predator. And this would appear to be the reason why some pathogens cause sudden death with the various forms of "heart attack", stroke, and other sudden immobilization during periods of high stress.

Our parasites are all trying to get us to live long and prosper... because if we prosper, they prosper. However there comes a point in many cases that they all mutiny at once and turn their host into a pathogen manufacturing plant and dead meat for predators, scavengers, bone breakers, and insectivores on the game trail. ... So we want to eliminate the early life diseases and early life inflammation. But we also might realize that keeping the parasites thinking their shedding platform is moving around all day. That is important. Maybe it isn't so much that you stay healthy, but your parasites must biochemically "think" that you are active and functioning as a mobile spreading platform. If your parasites all "think" that, then you might be in for an early demise, they would seem to be more likely to stage and end-of-life mutiny.

It seems that some creatures that die suddenly of old age have multiple pathogens re-surfacing at once. When this is the case, there might be a sudden acceleration towards death as multiple pathogens do a sort of "tragedy of the commons" thing with their host.

We really should culture whatever we can from the people that suddenly go off the cliff and die in their old age. What pathogens do we find them? Which ones are playing bicycle sprints at the end, so as to load the host up with their kind for the procession of scavengers

### **Bloodletting and parasites**

What if the fake injury of bloodletting caused the parasites to back-off.

### **The parasite's agenda**

Which conditions are improved by weight loss, hunger, or mild stress? Perhaps there are parasites that back-off and slow down when the host is stressed a little bit. There would seem to be some that do this in the case of physical activity.

### **Fusobacterium nucleatum and cancer**

This "harmless" mouth bacteria sometimes becomes part of tumor cells in the colon. Perhaps when it kills in this way, other animals can't fix on the infection's smell. In fact, the prey animal probably smells like it died of cancer and is thus perfectly safe to eat. So the predator/ scavenger eats and becomes infected, instead of avoiding the infected meal.

## **Pathogens known to cause cancer**

- 1/ HIV
- 2/ Human Papilloma virus
- 3/ Helicobacter pylori
- 4/ Hepatitis B
- 5/ Hepatitis C
- 6/ HTLV-1 (Human T-lymphotropic virus-1)
- 7/ Human Herpes virus-8
- 8/ Merkel cell Polyoma virus
- 9/ Simian virus-40
- 10/ Chlamydia Trachomatis
- 11/ Epstein Bar Virus.
- 12/ Fusobacterium nucleatum

Here we see 12 examples of CAP diseases that have attenuated to the point that they cause a fatal type of cancer later in life. And notably, none of these diseases kill by means of a stinky infection. So the prey animal is much more likely to be eaten and the pathogen spread to a new host.

## **Attenuation vs. counter attenuation**

- 1/ Counter attenuation only occurs in the bodies and evolutionary reality of prey species. Once the disease starts spreading among a new host species that is not a prey animal, normal attenuation takes over.
- 2/ There are two sorts of reality for CAP diseases. One reality is in the prey species reality, where the disease benefits a bit from killing the predators of its reservoir host. The other reality, is where the disease never wants to kill its hosts in a way that smells like the disease.
- 3/ This back and forth is where many pathogens evolved to kill late life in a way that smelled like natural causes.

## **Tumors and tumor suppression**

Maybe the correct way to view tumors and tumor suppression is to view the tumors as things that pathogens evolved to kill their hosts late in life with no smell. But over time, the host populations evolve ways to eliminate the cancers. Then the pathogen evolves new ways to kill the host without smelling too much. It is a bit like the way military measures and countermeasures evolve.

## **Are viruses nocturnal like bats?**

Even indirect sunlight is deadly to micro-organisms. Maybe the bats are nocturnal because their protection diseases are not as contagious in the daylight. Clearly the vapors droplets dry up faster in the day and also the sunlight kills the pathogens inside the water. Maybe flu season is from this. And maybe all crowded covered public places with less than 6-foot distancing should maintain daylight-like levels of UV light as a sanitation measure.

## **The pathogen-cancer DNA search-engine project**

We sequence all the bat viruses, bacteria and fungi for all the bats and then we look for DNA matches in all the various sorts of cancer, vascular tissue, Alzheimer's brain

tissue, etc. Maybe we should also take samples of various sorts of clogged-up arteries and aneurysms from cadavers and look for bat pathogen DNA matches there too.

## **Inter-species DNA exchange**

Does any part of the mosquito, flea, tick, or tobacco genome exist in the DNA of other plants or animals? Which plants?

## **Which animals get which human diseases?**

When a disease is a thing of carnivores, it suggests that it is from eating raw meat and transmitted that way.

## **Basal cell carcinoma**

Is the DNA of some virus commonly present in basal cell carcinoma? What about other skin lesion diseases? Clearly this non-fatal slow-acting condition is exactly what a pathogen needs to spread best.

## **Cancer: hereditary, toxin, or pathogenic?**

The toxin cancers from tobacco and asbestos were easy to spot. And there are probably more that are yet undiscovered. The hereditary cancers are also easily spotted. We don't seem to have come nearly so far with pathogenic cancers. Also, which tomato and tobacco funguses are carcinogenic?

## **What's the link between sugar/caloric intake and cancer?**

Do rates with high caloric intakes have a higher cancer rates? What does sugar consumption levels do to cancer growth rats? And shouldn't this be public knowledge? Is the healthcare industry run by its pharmaceutical industry and treatment industry, or the people?

## **How HIV kills by stealth**

- 1/ That HIV kills by cancers, cardio vascular disease and secondary infections are olfactory cloaking devices that allow the disease to kill and not smell like an infection death.
- 2/ That HIV kills in so many different ways make it is harder to detect by smell.
- 3/ HIV is a very old and very highly evolved pathogen that has evolved many ways to do the same thing. Why does it need so many ways to kill? So it can't be easily identified by smell.
- 4/ We should make a graph where all the known diseases are given an increment in a bar graph for all the known ways they kill. The one's that kill in the most ways are probably oldest.

## **Blood diseases must be stealth killers**

So the scavenger is sniffing the dead corpse. Many can tell when animals died of infectious diseases, and it knows to stay away from this smell and not to eat it. So what do the blood diseases do? They kill by stealth, by

cancer, or any indirect way they can evolve. So the blood diseases as a class look like they are probably causing many late life problems in humans.

### **A dog and rat experiment**

We really should study the preferences of predators as to infected animals, so we know exactly which way the pathogens are being involved towards by predator selection. Take some rats and kill them with infections that are harmful and deadly to dogs:

1/ Do hungry dogs eat the infected rats, or can they smell the disease?

2/ If the dogs don't eat the rats, do they avoid eating still living rats afterwards that are infected and smell of the disease that killed the other rats?

3/ Is the dog behavior any different than the dogs encountering still living rats that smell of disease without encountering the dead ones?

### **Bone marrow and blood cell diseases**

1/ That HIV gets into the bone marrow is the pathogen diversifying into the bone eater niche — a 4th class of corpse eating mammal. Bone eaters give valuable longevity to the pathogen's kills. So getting into the marrow is a big thing for these diseases that kill.

2/ Brain and nerve diseases also look like diseases for bone eaters.

3/ The image of hyenas breaking the bones of an infected animal needs to be on the office wall of everyone studying bone marrow and blood diseases as well as nervous system diseases. This reality is probably key to understanding where these disease come from, and what they are doing.

4/ We might find for bone diseases and antibodies in "hyena" saliva, as well as canine saliva. Maybe we should put extra attention into matching canine saliva diseases to cancers.

### **Emphysema = wearing your lungs out disease**

Like every other part of your body, you lung tissues can only re-generate so many times. Emphysema is when a person has caused their lung tissues to regenerate excessively and many of the cell lines have died.

### **Pathogenic lung cancer**

1/ There seem to be pathogens of the respiratory tract that live "outside the body" on its airway surfaces. Some go into hiding and repeatedly pop up. Thus they repeatedly cause inflammation of the lungs, probably where they landed first.

2/ This repeated inflammation causes the cells to age, a process that is inherently carcinogenic.

3/ The pathogens that caused greater aging, to the point of lung cancer manage to kill while hiding their smell. These got eaten more by the predator, scavengers, bone eaters, and insectivores, and these individuals became more of the pathogen species.

4/ The viral cancer process seems similar to that of asbestosis. In both cases we seem to have this foreign irritant causing cells to die quicker and age faster, until they make a mistake in replicating and become a cancer.

### **Allergy or lingering infection?**

Maybe the people who get pneumonia and then develop asthma have not developed an auto-immune problem, but are instead still suffering from the pathogen that caused the pneumonia. Maybe the asthma is the pathogen reactivating in what we call an asthma attack. Maybe some forms of asthma are from lingering infections.

### **Allergies and bronchitis**

I would suppose that the thick mucus in the lungs comes from a pathogen that kills the epithelial layers of the lungs repeatedly producing infectious sputum that gets spread all over.

**Pneumonoultramicroscopic silicovolcanoconiosis** is a type of lung **disease** that is caused by inhaling very fine volcanic ash and sand dust, according to the Oxford dictionary. It was created by the president of the National Puzzlers' League in 1935 during its annual meeting. The new easy to use name shall be Volcanic-Ash-Lung or VAL

### **Denatured proteins**

For people with food sensitivities, cooking the food for a long time denatures the proteins people are sensitive to, and this frequently prevents a reaction. So, if you have a mild egg allergy, try frying the eggs for a long time.

### **Is it the food, or the common microbes on the food?**

If a lot of something gives you acid reflux when it is fresh, but a little bit does after a day in the fridge, it seems like it is microbes that are the problem.

### **Hay fever**

The pathogens that evolved to wake up when there was lots of pollen in the air might have out-survived the ones that did not: This pollen irritation would help them get in better after all. Also, perhaps we contract the hay fever pathogen by going out when the pathogens that spread on pollen are active. Perhaps the hay fever allergies are from the same hitch-hiking pathogen(s). For all these respiratory allergies, maybe it isn't your body that is reacting. Maybe the pathogen is waking up and getting your body to help with its agenda of spreading. Maybe that is why you sometimes notice the Gerd before you notice the smell of the thing that triggered it.

### **Living around cedars**

Is there a difference in life expectancy in places with cedars and without them?

### **Provoking the immune system**

It is not hard to imagine pathogens binding with cells and provoking the immune system to kill the cell, so there is

no real unusual smell from an infection. This is how I see I auto-immune disease.

### **Selective aging**

Why do some sorts of cells age faster in some people? Perhaps it is from pathogen infections wearing out certain types of cells faster than the others, perhaps the cells they infect. And this is exactly what we expect from pathogens that want to kill in a whole bunch of different and natural smelling ways.

Many diseases have tended to evolve to target one type of cells or another. And these tend to be the cells they live in and burn up. So we should especially look for pathogen DNA in these faulty tissues. What traces do we find using our pathogen DNA search engine?

I wonder if we get rid of the pathogens wearing out bodies out in so many places... I wonder if we get rid of these, if we will not simply age slower and live much longer.

### **Why DNA spirals**

Is it because the spiraling makes the DNA less vulnerable to breakage by stretching, like the spiral wire on an old-style telephone receiver cord.

### **Loss of taste/smell in COVID patients**

1/ This gets many host animals eating things they should not eat and dying as a result. And they die in a way that has no smell of COVID. Thus their blood tends to get eaten more by predators, scavengers, and insectivores. Thus the pathogen perhaps makes it into a new species.  
2/ This is/was probably deadly to species that are heavily reliant on smell, species like bats and dogs.  
3/ Nasal congestion accomplishes the same thing and is a common way pathogens take away the senses of smell and taste to kill a few host individuals by stealth.

### **Kerry Mullens**

“There are no old wise men there at the top of science... There isn't an up there. There is no place... the academy of science is just a bunch of idiots just like everybody else. You know the editors of journals... they are just busy with their little lives and stuff. There are no old wise men up there on the top making sure that we don't do something really dumb.”

### **What is a retrovirus?**

Even the viruses that make you sick now can be retroviruses. In fact, most infective agent exists in two varieties along a continuum, the now expression and later expression. Although many times the immune system manages to prevent the later strategies from working.

### **HIV looks like an attenuated CAP disease**

HIV is always fatal, and it is most effectively transmitted by the blood. So it looks like it started as a CAP disease, and then evolved into a primate mounting disease like SIV. But it appear to have been symbiotic in how it helped eliminate the non-reproductive males (low-status

mounted ape males), so there could be more reproductive females given fixed food inputs.

Here we note that ape mounting behavior make little sense without HIV/SIV, but it make perfect sense with it. The mounting tended to be the eventual kiss of death for the recipients, death by hepatitis and HIV and other gay men's diseases.

### **Breast cancers and reproductive cancers**

Breast cancer tends to kill off females after they are done using their breasts. So it looks like it came from a pathogen that evolved to be symbiots for our ancestors. So all the breast cancer inducing pathogens are probably long established in man. Breast cancer pathogens are probably not transmitted via promiscuous breast contact, as this never occurs in the animal kingdom. Also, we don't see males getting breast cancer and many males are doing this with many partners. Breast cancers seems to be from some systemic pathogens unrelated to the breasts they manifest in. Also most of the predominantly late-life sexual cancers are probably from the same bunch of pathogens.

### **Breast hormones, suction and testing.**

Lactating hormones and breast suction may spoof pathogens in the same way that exercise spoofs so many late life pathogens. Perhaps at age 45, 50, 55, 60, 65, and 70 women get a dose/course of lactation hormones. Perhaps after we administer our lactating hormones, we also apply machine suction to nipples to obtain fluid samples for testing.

### **The BRCA gene may not be a defect**

Like HIV and hip dysplasia, this gene confers benefits to group evolution by eliminating individuals over child bearing age.

### **Statistics**

Let's graph the number of offspring for each male chimpanzee in a troop. Let's also graph the number of times each male was mounted in prior years. The mounted males should not be producing many offspring. And this is the niche that SIV and HIV exploit—getting rid of the non-alpha mounted ape males that didn't produce many children.

### **If the CDC is touting masks for COVID...**

It is fairly obvious that HIV is hundreds of times more contagious via infected semen in the anus than in the vagina. Why is there no public information campaign about this while HIV is still killing so many people?

### **Hissing animals**

Animals hiss, spit and bark partly because it causes infected “saliva” droplets to go airborne. This helps infect predators with whatever infections the prey animal has — like say a CAP diseases perhaps. Thus hissing

individuals survive better and become more and more of the species.

At first, animals evolved to hiss because the predators that didn't get frightened-off, tended to get sick and die out. Then some predators evolved to fear hissing. Then other animals started hissing because it scared predators away. Now it seems to be a mix of everything.

### **Bat cave colds**

All the human coughing and sneezing and nasal itching, the discomfort, the snot, and the lung mucus. All of it helps the bats diseases spread in bat cave cave huddles. This is what all this stuff evolved for — to help pathogens spread better in a dark bat cave, among sleeping bats, when the cool daytime bat metabolism is good for incubating diseases.

### **Sicker when you go to bed**

This is another thing that seems to from the bat cave. This gave the bats a higher viral load of protective diseases when they huddled to sleep together.

### **Why do predators have strong immune systems?**

1/ This is needed to deal with the diseases they catch from their raw meat diet.  
2/ The hard part of being a meat eater is not only catching the prey, but also having a strong enough immune system to cope with blood diseases.

### **People should be more careful about eating**

a/ Undercooked meat and jerky  
b/ Wild meat, particularly wild varmints (from vermin).  
c/ So-called red meat. The name red meat is curious because it confuses the type of meat with the undercooked meat that is the problem.

### **Illness monitoring**

We all should have an illness reporting app on our phones. Got a fever, headache, sore throat, runny nose, etc.? Report it. Then the "CDC" can make real-time maps of infectious illnesses. This gives faster data than waiting for people to go to a clinic.

### **Russian roulette**

Let's say you could have a pig pen next to your bed. There is a dryer hose and some little fans that take the air from right next to the pig at its snout, and pumps the air right above your pillow while you sleep. This is a completely awful idea right? You are going to catch something... right? The point I am trying to make is that eating rare meat is probably a greater health risk.

### **Species protection**

Eating undercooked wild "bush" or varmint meat is dangerous for all mankind, not just you.

### **Bubonic plague seems to comes from**

### **squirrels more than rats**

The Black Death apparently comes from the fleas of marmots, which belong to the squirrel (sciuridae) family. And in the US at least, many primary plague infections seem to come from contact with squirrels. So with plague, we are perhaps wrong to worry mostly about the filthy rats. Instead we should perhaps worry more about the cute little squirrels. We really should do some research about the true host. Knowing this might save a great many lives one day.

### **How fast diseases march**

1/ Perhaps the "fast marching diseases" like plague, diseases moving inexplicably fast are vectored by bats.  
2/ There is probably a formula where march speed = bat range over incubation period.

### **Why did the rodent get big again?**

Rodents are all about being small, low cost, plentiful and expendable. How come some rodent species have abandoned the small and low cost tactic and grown large again? (for example Marmots)... Isn't this like how on islands, many species grow big when they have no predators? Apparently Marmots are on this virtual island as a species—and they don't have to worry much about predators. This apparently is due to the bubonic plague they carry, and perhaps other diseases. What other rodent species have gotten big and fearless due to their germ weapon(s)?

### **Fearlessness is a symptom of CAP diseases**

Apparently marmots come right up to people. Apparently their species has no need to fear other animals. Thus they can infect and cause no harm themselves. This seems to be another sign of species that harbors a killer disease. Maybe we should trap and sample the blood of fearless creatures.

### **The strong smell of rodents**

This is like the poisonous snakes with the bright coloring. The rodents are shouting: "stay away from our kind". They are associating their smell with their diseases. They don't care if predators can detect them more easily. Better all the other animals learn to stay far away from their kind.

### **Just don't eat MY kind**

It is actually better if the predator is still around eating your competitor species, but not your species. So perhaps GERD and other upper digestive ailments are the result of a pathogen like Helicobacter pylori that puts predators off eating certain prey animals. Which species harbor Helicobacter?

### **The bark of this tree**

Zoonotic isolation will probably prove more valuable than the botany of treatments — for here we stop the problem at its source.

### **Plague breeding species**

Where is the next super-bug going to come from? Probably where past super bugs came from.

### **Non-transmissible between humans**

Think about how bird flu has been caught by humans, but does not seem to transmit between humans. There are two possible reasons for this:

A/ The disease (which can already reproduce inside single humans) needs to mutate so that its copies can infect others.

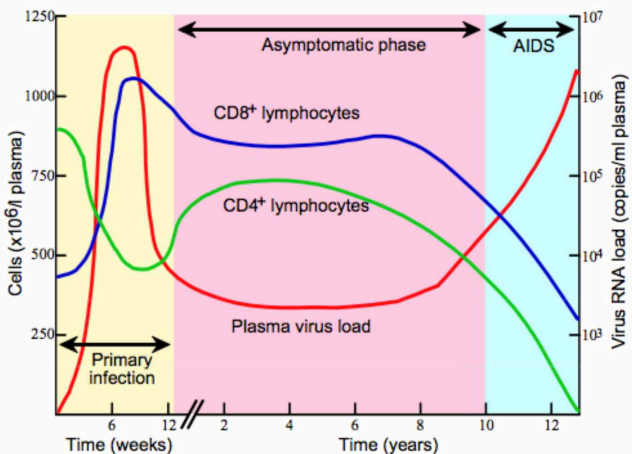
— OR —

B/ Bird flu is like HIV and Hepatitis-C. It is hard to transmit. It needs blood-to-blood, or ingestion of blood, or inhalation of dry bird feces, or some precise set of conditions to spread. Here we note how “everyone” touches and occasionally eats raw bird flesh, but few people come in direct contact with human blood or flesh.

### Hepatitis-C

Apparently only 3% of people diagnosed with Hepatitis-C pass it on to their long term sex partners. It is one of the most important things in medicine to know how the various diseases spread, and which practices lead to the transmission of which diseases. The red “Plasma virus load” line in the above graph is the viral load for HIV. Note how the viral load is in the thousands except in the initial 12 weeks and in the late stages of the disease. Also note that the viral load can be in the millions for these periods. Now considering that Hep-C swims in the same animal blood ponds as HIV: Maybe we should use the HIV viral load curve as our mental model for the viral load of Hepatitis and many other diseases. And maybe, some of these have a late life pick-up, and some just taper-off.

And maybe with Hep-C, the initial short spike in viral load and infectiousness is only a few days, and these are both many times what they are afterwards during the long tail. Perhaps the 3% number is due to timing and a disease that is only contagious for only a short while. Then, after this the disease is seldom passed between people.



### The way a cold virus affects us

Maybe our immune systems not coming up with a pattern match and winning out over a pathogen. Maybe it is the virus tuning itself down so it can acquire a mobile spreading platform. Look at the viral load over time graph for HIV. Certainly this pattern not unique to HIV.

### We must do it

Blood-to-blood exposure is the touchstone for seeing if inter-species transmission is possible. We need to know all the zoological niches for all blood-to-blood transmission of all

diseases. And injecting animals in this way is going to bring an early death to a few old/weak/particularly vulnerable individuals in each species. But we will use this knowledge to bring eternally greater health to both ourselves and to all animals.

### Central Asia Marmots

If these are the main bubonic plague reservoir species:  
1/ The same forces that cause them to develop one disease will also cause them to develop others. So they might carry other nasty diseases. We should first have multiple teams looking for these diseases for some years before culling.  
2/ We may want to have a few walled marmot reserves and eliminate the marmots from most of their habitat.

### Tuberculosis

TB looks like another counter attenuated predator disease that always eventually kills. And in the process of killing it causes victims to frequently cough up blood clots for years, clots that are surely full of infectious TB germs. Each must smell quite a bit like a bleeding animal or a kill. Thus the TB chunks get carefully sniffed by predators following a trail. And it is a little blood here, and some weeks later, a little blood there, exactly what the pathogen needs to spread best across a wide territory.

This explains why TB is so hard to pass on between humans. We are not generally sniffing the blood other people cough up, like a canine might. Although we might be near while someone coughing up a TB blood clot. We should probably tell everyone who once tested positive to TB that if they have to cough, then they must social distance.

It seems likely that the costly and scarce bacterial “seeds” are only expelled in clot form. And TB is otherwise “1-in-a-million” contagious. Perhaps hepatitis C and many other hard-to-contract diseases follows this model.

The half-life of untreated TB patients is about 5-years. Half of people with untreated TB die every 5-years. So TB is a blood disease, and one that re-attenuated to turn the victims into multi-year blood-spitting spreading-platforms.

### Look where TB is most prevalent

North Korea, Burma, Cambodia, New Guinea, Mauritania, Sierra Leone, Djibouti, and all the nations south of Chad and west of the Rift Valley. These places are not just poor, they are also isolated and thus ignorant.

### A disease of ignorance

It isn't hard to infer from the countries that suffer most from TB that TB is a disease of Ignorance. Let's do some surveys. How many people in these places have never heard that if you cough up blood, you need to go and see a doctor right away for the relatively easy cure. Do the TB nations score especially low on these surveys?

### Does knowledge cure TB?

TB is often called as a disease of extreme poverty. However, maybe this is inaccurate. Maybe TB is actually more of a disease of extreme ignorance. People have to be really ignorant not to have heard that painlessly coughing up a little blood now and then is a symptom of a deadly contagious disease. If this is so, then the easiest thing we can do in the global battle against TB is educating people.

Everyone should know that the half-life for untreated TB patients is 5-years. Half die every 5-years. Also they should know that the blood clots are what is truly infectious, and people are perhaps thousands of times more infectious while they are coughing up TB blood clots. Also, sniffing or ingesting the blood clots seems to be another way to pass the disease.

How much do global TB rates correlate to knowledge about the dangers of coughing up blood? I suspect that people don't see the harm of coughing up a little blood. They also don't grasp that the blood clots they cough up are highly infectious. They also don't know that they will be treated for no money and that they will probably be totally cured in no time. Otherwise, they are probably going to eventually die of TB and they will infect the people around them along the way. So for raising TB awareness and curbing transmission, let's have more public awareness ads about the dangers of coughing up blood in the nations where TB is prevalent. You have to go right away for treatment. It doesn't cost anything, and you get paid time off work if you have to quarantine.

### **Where are the TB blood sputum pictures?**

#### **Why is it so hard to search for TB sputum pictures?**

If coughed up blood is responsible for 99% of human to human TB infections, why is it so hard to find pictures of this online? How much blood do people cough up? What does it look like in humans and animals? What does TB look like in humans and animals? TB sure seems to be a disease of ignorance, not poverty.

### **Everyone coughing up blood**

Unless there was a recent trauma, everyone must get a TB check if they are spitting up blood. This shall be the rule worldwide.

### **Where is TB from?**

The distribution in southern Africa (including South Africa) suggests an animal source for TB, probably bats. Which bat species have habitat that matches the highest TB infection rate zones adjusted for TB inoculation?

### **TB among animals**

TB evolved to have the coughed-up clots sniffed as food on the animal trail, or during copulation. The pathogen puts all of its reproductive energy here and completely shuts down at other times so it is undetectable by smell.

### **Let's keep TB under control**

TB is definitely threatening to break loose of our antibiotic treatments. We really should be doing everything we can to slow down this treatable disease.

### **Ending TB**

The simplest and easiest thing we can do to end TB is to have an information campaign.

### **Blood pathogen multi-tests and prevention**

Let's have these multi pathogen blood test machines like our insulin testers. A person uses an insulin test needle to get a drop of blood which is touched to a multi-headed version of a sugar monitor insert. One of these devices checks for all the STDs, another for the respiratory diseases, another for diarrheal

disease, etc. This is how we get instant self-help results for very little cost. This is how we put an instant infectious disease lab everywhere on earth. This is how we do regular screening.

### **COVID vs. Tuberculosis**

So far, COVID is on track for killing around 6-million in two years, or about 3-million/year. Tuberculosis kills about 1.5 million a year.

### **TB and snogging**

I bet that TB is pretty easy to catch from snogging. Here is why I would include it on a standard STD test panel.

### **Physical education and respiratory disease**

The most conducive environment for spreading respiratory vectored diseases is to start with kids. First make them exercise in cold winter air so they get cold, and their airways get chapped and lacerated. Then make them take steamy showers together right after they were running around and getting chapped airways. Also, it is very helpful is spitting during or after one's run is considered part of working out.

### **A better TB approach?**

Can't we develop a more effective vaccine than the one we have? The one we have isn't very effective.

### **TB treatment**

We might try administering our antibiotics as both a vapor inhaler to the inside of the lungs and also as pills. Also, perhaps some drugs for lung infections are better tolerated in higher doses by administering the treatment to the lungs.

### **Inhaled vaccines for pulmonary infections**

Pulmonary vaccines and treatments are probably best inhaled where possible.

### **What is TB's main animal transmission scenario?**

TB is always deadly, so it looks like a counter attenuated predator disease, and that points to bats. And maybe the clots are not perfectly adapted for infecting sniffing predators on a game trail. Maybe that is an incidental transmission route. Maybe some species of bats cough up the TB blood clots when they sleep to infect one another (harmlessly probably). And maybe they clots come up when they are fear stressed. These then infect the bat predator/competitor which is mostly sniffing around in the dark.

### **Faking-out TB**

It should be possible to fake-out TB so it goes dormant <https://www.sciencedaily.com/releases/2021/02/210222124608.htm>

### **Can bat colonies spread TB?**

Why don't we leave some TB infected animals for some hunger stressed bats without enough food. Which species of bats can pass the TB to which animals?

### **Which diseases can bats network and pass along?**

we should test a variety of bat species for this.

### **Moving between bat caves**

Do bats always come back to the same cave, or do some go

between caves? Which bat species move caves and spread diseases between caves?

### **The TB portal species**

If we look at a TB prevalence map, the southern part of Africa looks like the most likely place for where TB is being transmitted from animals to humans. After our education, vaccination, and treatment campaign has been in place for some years, we will be able to better see which areas this is.

### **Homosexual men's diseases**

Aside from HIV and Hepatitis, which diseases (including late life diseases) are more common among homosexual men? It should be easy to find these diseases, and catalogue them, and generate statistics so people will know the true risks. Also which late life diseases and conditions are tied to people who were sexually active vs people who were strictly monogamous?

### **HIV is an old disease**

HIV is obviously a hugely attenuated pathogen. After all, it is a bug that takes around a decade to kill its host. This is not typical of new diseases at all, it is typical of very old diseases that have been around for decades at least. Yet HIV kills the non-reproductive males. So HIV is an ancient disease that became a symbiot.

### **SIV/HIV are probably a mounting symbiots**

It is very common for male chimpanzee to get mounted and raped by another male. HIV seems to be a symbiot, that kills-off the males getting raped, and saves the dominant alpha males that do not get raped. HIV is also much harder to transmit through vaginal receptive intercourse than through anal receptive intercourse. It is perhaps 500 times harder to transmit this way. So HIV and SIV exist mostly among mounted males for this reason.

Now chimps are frequently mounting one another, — male to female and male to male. And because SIV/HIV exists mostly among receptive males, we will tend to see chimp and proto-human societies where all the males that get raped also get wiped-out periodically, leaving only the alphas, the alpha offspring and the females. In this light, SIV sort of looks like a group-evolution symbiot, rather than a disease — This because it helps the chimp society to eliminate the evolutionary dead-wood of the non-breeding males. The proto-human ape societies that had HIV/SIV had a higher proportion of females because they tended to have a symbiot that killed off all the non-alpha males. And because of this, these societies tended to evolve faster. The societies without SIV had lots of mounted males, and as a result evolved slower. In this light, we see SIV as a mounting disease that got rid of the non-breeding non-alpha males that were being mounted. From this vantage, it looks like SIV and HIV have been with ape-kind for perhaps millions of years.

### **Is HIV a symbiot test**

Regarding chimpanzee troops and HIV, we should infect two troops and watch them to see if these two diseases are symbiots or parasites. Basically we ask:

- 1/ Are there more females in the troops with HIV/SIV?
- 2/ Are more offspring making it to adulthood with HIV/SIV?

3/ Is evolution somehow accelerated in any way with HIV/SIV?

### **High budget gay bathhouses and the HIV epidemic**

Can someone please do timeline for when all the high budget gay bath houses opened up across America in the years before HIV hit. Relate this to the HIV new cases. Was there a sudden bump in bathhouse openings in the years right before HIV hit? Was there a business group responsible for most of these?

### **Pathogens don't normally evolve towards virulence**

Pretty much all pathogens find it hard to spread among modern humans with their medical knowledge and adaptive responses. And the deadlier the pathogen, the more we respond with counter measures. So we should expect that nearly all pathogens, nearly always rapidly attenuate in humans as a result. Also we should expect that when pathogens "mutate" and become deadlier in humans, it is probably from re-introduction rather than actual mutation. After all, the original zoological sources are the only evolutionary route that is driving evolution "backwards" towards virulence.

### **Human epidemics and time**

If virulence only evolves in prey species, then the longer the pathogen exists in human hosts, the more it should re-attenuate.

### **Limited pathogen resources**

- 1/ The pathogen's resources are typically limited given the demands of blind dispersion. So the pathogens evolve to focus their efforts and put their offspring where they will be able to reproduce best and survive.
- 2/ Pathogens evolved to infect the blood so predator, scavengers, and insectivore will consume the pathogen in the first place.
- 3/ Pathogens also evolved to infect the nasal and respiratory tracts, urine and feces, so the disease will get blown around in the bat cave, and between other social animals like dogs and rats. It is also so hissing animals will pass the infection.

### **A highly varied appearance... to the immune system**

Pathogens are all masters of disguise when it comes to immune systems. After all, aren't they just burglars sneaking around and re-purposing our bodies—until our immune system can recognize them and eliminate them? So maybe the evolution of pathogens is more about cloaking and disguises than anything else.

### **The pathogen's objectives**

- 1/ Produce lots of offspring.
- 2/ Get offspring dispersed well.
- 3/ Go undetected by current host's immune system.
- 4/ Go undetected by new host's sense of smell.

### **It isn't mutation really**

Most pathogens are not truly mutating very much. Mostly, they are expressing some old and already well refined recessive traits long in their genomes.

### **Antibiotic resistance**

What happens when bats regularly drink livestock blood with antibiotics in it? Does their 20-million cell disease-breeding-



network then breed pathogens that are resistant to the new obstacle in their objective of virulence? Are bats the main source of anti-biotic resistance?

### **Measuring the damage each course of drugs causes**

What does each course of the various drugs do for life expectancy? Which drugs actually extend life and which do not? When do we reach the point of diminishing returns?

### **Acetaminophen as a toxicity benchmark**

We should indicate how toxic all drugs are by benchmarking them to 650mg of Acetaminophen. This including 1000mg doses of Acetaminophen.

### **MRSA**

- 1/ Bats are known to carry Staphylococcus.
- 2/ MRSA is not only a thing of hospitals. It also affects farms among other places.
- 3/ Maybe pathogen resistance evolves in the same place where pathogens evolve in the first place.

### **Is it camouflaged?**

Evolution frequently causes parasites to camouflage and hide themselves. Think of how hard it is to spot flesh-colored tick blood sacks on a dog's belly. Symbiots don't have to camouflage. The rewards of their helpful symbiosis is enough to keep the relationship going by itself.

### **Is it part of a disease family?**

We see several related families of diseases, like the different varieties of Epstein bar virus, coronavirus, herpesvirus, and pox diseases. What are we looking at here? Aren't we seeing the results of a sort of meta-organism relationship budding various different mammalian diseases? Where is that ancient factory if not in the bat networks?

### **Shingles and Herpesvirus skin lesions**

The correct context for these blister diseases seems to be in a crowded bat cave.

### **One infinite loop**

As mosquitos feed on all animals, it would not be surprising if bats also played an important part in the mutability of malaria. So by shutting down the bat networks, we might also be shutting down part of the malaria evolution network.

### **Why the pathogen makes us feel bad**

Think about the flu. Incapacity from sickness must turn many animals into prey, and scavenger pickings, thus they will tend to infect other animal species. But they don't stink like they died of the flu. Yet they tend to become prey and scavenger pickings. That is why you have body aches.

### **Pathogen dispersal trumps all**

Just as seeds dispersal is all-critical to plants, infection dispersal is all-critical to pathogens. So we need to realize that infectiousness is the main objective/ benefit to a pathogen. And little else really matters in comparison. Whatever works survives and becomes the species.

### **Paralytic diseases**

This may be related to the way that we are so much weaker than apes. I think there was some kind of evolutionary need for

having weaker humans, perhaps because at some point we were just killing each other playing around with our intelligence and sticks. These might just be from a beneficial mutation. Or it might be pathogens killing their host in a way that doesn't smell strange.

Robots for paralyzed people should stress their bones a bit, so they don't degenerate so fast.

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### **Pigeons as disease vector**

Pigeons fly out over a large area scavenging food and dead animals from our cities. Then they roost together rather like bats. They may not be mammals (like bats) with similar metabolisms, but on the other hand they live much closer to us, and in great numbers. So they spread fewer diseases, but they are still a vector network. For example histoplasmosis fungus is spread by dry dust from both bat and bird droppings. Cryptococcosis and psittacosis are two other less deadly bird dropping diseases that we know of because they produce immediate symptoms. There may very well be other attenuated bird dropping diseases that only produce problems later in life. If we are going to "drain the swamp" and get rid of the worst disease vectors, urban pigeons should be on the list.

### **Pigeons as a germ warfare risk**

Your enemies can catch pigeons from a variety of towns and them bring them to a central release point. Upon release, these will always fly back home and bring whatever hungry fleas and mites people care to put on them.

### **Nobody cried for small pox**

Nobody cried when we made smallpox go extinct in the wild because it is a "criminal species" in the "society of living things". Likewise, nobody can rightfully object to killing all the ticks or rodents or pigeons infesting a city.

### **Vermin**

All creatures that transmit human diseases are vermin when they come to live with us. All should be eliminated from every human community on earth as best we can.

- 1/ Mosquitos
- 2/ Ticks
- 3/ Fleas
- 4/ Rodents (including squirrels)
- 5/ Bats
- 6/ Pigeons

### **Sub-zero parasites?**

Do mosquitoes, ticks, and fleas benefit the ecosystem in any way at all? What about bats? I bet we eventually realize:

- 1/ That removing insectivore bats does not increase insect populations by a detectable amount.
- 2/ That the disease spreading bats are more of a problem than the insects they eat.

### **Criminal species**

Species that harm other species, their habitat, or people, and especially if they harm people — these species

should be thought of as criminal. Criminal species may be brought into captivity, and made extinct in the wild. This will greatly reduce disease — all disease — including a lot of late life diseases that people take for natural aging.

### **Eliminate from the wild?**

It might greatly benefit mankind and the other mammals if we took some germ-warfare, or plague-carrying species into captivity, and eliminated the rest from the wild:

- 1/ Vampire bats and certain other types of huddling bats that eat corpse insects for example.
- 2/ Certain oversized rodents.
- 3/ Wild pigs.

### **Places without a certain animal**

What late life diseases are less common where there are no bats? What about where there are no dogs, squirrels, pigeons, or pigs? What about people bitten by certain animals, what late life diseases do they suffer more from?

### **Staying away from wild animals**

There needs to be more public information about this. And people need to understand that the risk is not that one individual will get sick and die, but that a new disease like COVID will be unleashed upon mankind. This is why people should avoid contact with wild animals.

### **Many animal species mixing at the zoo**

Zoos are a terrible idea from an epidemiological standpoint. And “the world famous San Diego Zoo” is perhaps the worst. This is because the San Diego zoo is right by the airport of a huge tourist attraction city. And landing in San Diego, you fly right over the beautiful zoo and interesting-looking Balboa Park. (Quite Beautiful and interesting from the air.) So people from all over the world arrive, and many go straight to see the “World famous San Diego Zoo” before doing anything else. Thus, one of the world’s largest animal collections is constantly exposed to fresh diseases from all parts of the world. And many other people visit the zoo on the way out. These people get exposed to the world’s largest animal collection right before heading-out to all parts of the world. And many people bring their kids, which crawl around and touch everything, and then put their hands in their mouths, or rub their noses, or eyes. The alternative is to put all our zoos far away from big cities, and more spread out, or behind glass.

### **Varmint jerky**

This is sold by the roadside in so many places around the world —and few people have any concept of the dangers. There really should be a worldwide campaign about how dangerous it is to eat wild varmint jerky—and also to butcher varmints. We need to explain how it is not enough to dry meat and prevent it from spoiling. There are other pathogens and parasites in the meat that are not killed in the drying process. And again, it’s not just the jerky eater’s health that is at risk. Eating under-cooked jerky

puts everyone’s health in danger. So selling under-cooked meat, particularly under-cooked wild meat should be illegal worldwide.

### **It isn’t beef that is unhealthy to eat it is undercooked meat that is the problem**

Undercooked meat can have many game trail pathogens that have attenuated to merely cause inflammation and an early demise.

### **Stop the varmint hunting**

Hunting varmints for food:

- 1/ Occasionally causes terrible plagues.
- 2/ Causes much late life disease.
- 3/ Is bad for species conservation.
- 4/ Is inefficient and wastes a great deal of time.
- 5/ Is not a significant source of food.

### **Varmints in cages**

Varmints in cages are certainly more infectious than dead varmints. The trade in live wild animals for food or pets should be entirely halted worldwide on the grounds that it may lead to plagues.

### **Stay away from sick and fearless animals**

So you found a strangely brave animal that is not running away from you, as normal. Maybe this is because the animal is terribly ill and has a high fever and a massive viral load. And again the risk is not that you will get sick as an individual, but that everyone will get sick from your interaction with the sick animal. The media (particularly the children’s media) should not be encouraging or depicting people who find sick animals and nurse them back to health. It should be doing the opposite and telling people to stay away from sick and fearless animals.

### **Rodent to pet to human**

The double jump from rodent to pet to human is unlikely, especially considering the strong immune systems that cats and dogs have. It is better to have the pet kill/ eat/ reduce the numbers of rodents than to leave the rodents around to infect humans.

### **Separating from the animals**

I bet we eventually realize 3-things about disease:

- 1/ Most new and nasty varieties of diseases come from other animals.
- 2/ Most late life disease comes from attenuated pathogen infections decades earlier.
- 3/ People should be staying away from wild animals, and never butchering them, or getting their blood in their mouth or eyes.

### **Russian roulette for all mankind**

It is Russian roulette for all mankind when people to eat many species of wild animal, or uncooked jerky, or meat. And keeping wild animals as pets is a similar sort of risk.

## **Test all the animals**

We should be regularly testing all the wild animals worldwide for pathogens. A little blood, a little saliva. How do diseases move around among the species?

## **A stay away from wild animals campaign**

If all the new varieties of diseases are coming from other animals, then maybe we should have a worldwide campaign against eating and interacting with wild animals except perhaps those with hooves.

## **Better isolation from a few creatures is how to stop most disease.**

### **Wild animal walls**

What if we walled all the human communities worldwide? What if we put a 6-foot block or precast concrete wall around all the world's communities. This separates all the wild animals and crawling insects from the human community. What if we put a 10-foot flying insect fence/screen above our 6-foot animal wall? This fence is perhaps made of chain link panels, with standardized bug screening panels that clip in. The screening is regularly sprayed with insecticide. As most flying bugs stay close to the ground, most land on the screen and die soon after.

1/ The non-flying insects can be more or less permanently eradicated inside the zone with a single application of pesticides. Also, most of the flying insects are prevented from entering.

2/ Due to the ring of animals on pyrethroids, and the screening, perhaps very few mosquitos will be able to make it into the community.

3/ There are no mice or snake bites, or insects, or road kill.

4/ Six-foot cinder block wall (on 2-foot footings) costs about \$120/ lineal foot, or ~\$650,000/mile. Then we add maybe \$350,000 for fencing and screening/ mile. So a 20-mile x 20-mile square fenced area (with an 80-mile permitter) might have a one time cost of \$80-million for a city of say 3 million to share. That is a one time cost build cost of \$28 per person. (although tilt-up panels are probably better and cheaper.)

5/ Given the per person cost of building a wall like this, the fences might be 3 stories tall in many cities, so they are more effective at keeping the flying bugs out.

6/ If we spray the inside area with insecticide once, then we have 400 square miles of land where we can live mostly pest free without any additional pesticides. And maybe this pesticide breaks down in a few weeks, and long before human use of the land.

7/ We also imagine fields that are made free of insects by a single initial application to the ground, and then kept mostly free of insects by a grid of insecticide screen walls every so many miles apart. Thus only the walls need regular spraying, not the fields.

## **Fluoridated water**

### **Insecticide water**

Fluoride is terribly toxic stuff, but we only put a tiny amount of it in the water. What if we did this with the pyrethrin in the tap water across Africa's bug zone? What if people were supposed to water their livestock and there were artificial watering holes for wild animals. Then many animals would be made poisonous to mosquitoes. Maybe the aid water will be insecticided, so it will both be safe to drink and also it will significantly reduce new malaria infections among other mosquito diseases.

### **Illness monitoring**

We all should have an illness reporting app on our phones. Got a fever, headache, sore throat, runny nose, rash, etc.? Report it. Then the we can generate real-time maps of infectious illnesses.

### **Headaches and migraines**

Excessive B-vitamin intake gives me a headache. And cutting out the B-vitamins might take a couple weeks for the headaches to go away.

### **Rat dogs in action**

They don't normally draw blood from the rats. Instead, they grab the rodent by the middle (away from both infectious openings) and instantly shake vigorously. It is hard to say what exactly is going on without slow-motion, but this motion probably sloshes the brain of the rodent causing instant disorientation and anesthesia. And once the dog gets going, it develops this towel snap motion that breaks the rodent's neck. The dogs that did not consume much blood, or end-fluids out-survived the ones that killed by biting. That is why they bite in the middle.

### **Jerboas and monkey pox**

This looks like another CAP disease.

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### **River animals and infectious disease**

Think of the mammals living in runoff water contaminated with the feces, and corpses of other animals. These must already have a high resistance to disease. Which muck rooter is going to survive best?... The animal that carries lots of diseases to plague predators and competitor animals: or the animal that doesn't carry any disease? Here is why so many diseases come from, or via pigs. Here is why all the world's hog populations should be separated and quarantined.

### **The stink of pig manure**

Is the pungent odor of the pig pen like the distinct smell of mice? Is it an infectious animal teaching would-be predators a lesson with that smell? The pigs also perhaps roll in their manure as a 2nd line of defense, another line of germ warfare for predators.

## China and pigs

The Chinese character for the word FAMILY is essentially a pig under a roof.

And even today, about 20% of Chinese pigs come from small holdings where the pig lives in the same building as the humans. The old Chinese way is that the pigs live in the not-so-well-sealed-off crawl space under the house. It is these small pigs-in-the-house families that are thought by many to be the world's main source of swine flu epidemics. So this practice should be stopped.

## Vaccinate the pigs

Don't just vaccinate humans, vaccinate the pigs too

## Pigs, flus and colds

We should expect to find germ-warfare animals living in ecosystems that are rich from waste. For example mammals that live in water contaminated with the urine, feces, saliva and snot of other animals. It is in these dirty ecosystems, the animals must already have a high resistance to disease. But which muck rooster is going to survive best: The one that carries lots of diseases to plague competitor animals and predators, or the one that doesn't carry any disease?

## Wiping out swine flu

Mandatory pig-farm separation and quarantine might add a tiny bit to the price of pork. But it will greatly curb the many swine flu varieties and the late life diseases they cause. So let's change the rules of pig farming worldwide and put a complete halt to pig diseases.

## New international rules of pig farms Pig farming minus the human diseases

- 1/ No hogs may be kept in the same building that people live in or work in.
- 2/ We want our pig populations fully isolated from each other, from other animals, and from people. Then pig meat will be clean for mankind and good to eat.
- 3/ There should be a licensing process that make it unprofitable for people to keep less than say 500 pigs. And this should be so for the entire world.
- 4/ All pig factories must be a safe, and odor-free distance from all communities.
- 5/ All pig factories should be 100% sealed with regard to contact with land animals, bats, birds and even flying and walking insects. If there are any doors, openings, or skylights, they must be both netted and screened.
- 6/ As few people as possible should come in contact with live pigs. We should push all hog farming worldwide into robotic factory farms that have mandatory entry and exit quarantines for the few on-site workers. There are robots or shock collars that drive the pigs along, and for their meals, exercise, and a robotic "car-wash. When the pigs are out of their sleeping bowls, their bowl is washed out, and the waste sent down the drain by an overhead robot

on overhead rails. So there is no mud or filth in the pig's life. It is a place of skylights and indoor laps on concrete.  
7/ This is a big part of how we "cure the common cold" and eliminate most pig-borne colds and flus. It is also how we eliminate a great many attenuated, late life diseases that "colds and flus" tend to give rise to.

8/ All the feral hog populations need to be considered vermin and either relocated to islands or exterminated.

## Bats and pigs

If we get serious about eliminating vectors, we probably should keep bats and pigs totally apart. It is not hard to imagine diseases cycling through one network into the other and back again.

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## How much do bats accelerate time for pathogens?

2-fold? 20-fold? 200-fold? Doubtless it depends on the pathogen and bats.

## Bat diseases & Metcalfe's law

Metcalfe's law restated for biology says that: Evolutionary speed = population squared. So linear increases to the breeding population: 2X, 3X, 4X, 5X, etc. have an exponential effect on evolutionary speed 4X, 9X, 16X, 25X, etc.

So if a hypothetical Coronavirus is living in 11 equal sized animal populations connected only by bats, removing the bats will cut evolutionary speed for the Coronavirus by 11-squared, or 121-fold. In other words, getting rid of the bats will cut the speed of evolution and adaptation by over 99%.

## Metcalfe's law and evolution

Metcalfe's law (posited by George Gilder) was intended for computer networks, but it also applies to the adaptive speed of biological breeding networks. Metcalfe's law states basically that a network's "value" equal to the square of the number of nodes the network has. With biological networks it might read: The adaptation rate of a breeding network is an exponent (a square) of the breeding population.

So when two equal sized breeding networks are combined, evolution doesn't just happen 2X as fast, it happens 4X as fast. And when we divide a breeding network into two equally sized populations, evolution happens 4X slower.

So if we eliminate bats from a disease's breeding population, we might divide that family into 20 different populations that seldom interact. From here we imagine that eliminating cave bats might cut the adaptive speed of

many diseases like those of the Coronavirus family by  $20 \times 20 = 400$ , or 99.75%.

### **The Bracken Cave**

This cave in central Texas is home to 20 million Mexican free-tailed bats [*Tadarida brasiliensis mexicana* (Molossidae)]. On one hand it can be called “the largest warm-blooded non-human vertebrate colony in the world”, and on the other hand it might be called “the world’s largest network for evolving fresh and super-virulent bat vectored zoonotic pathogens”.

Immunologically, we are fighting an evolutionary war with a number of bat vectored diseases. If we find that we must keep the bats, then we might close the largest caves and drive the bats into nearby “bat-coops” man-made apartments that can be slowly spread over a great area a few meters a day. Thus the largest caves are “broken up” into smaller disease breeding networks. This presuming the bats don’t fly between coops too much.

Otherwise, we have a huge evolutionary network that is working towards counter-attenuating mammal diseases and making them much more virulent. Also, if we are going to do any intervention, we would be wise to start with the biggest bat metropolises because this is where most of the counter-attenuating evolution is occurring. This is where evolutionary time is running fastest.

### **Bats might not be so important in that ecosystem**

- 1/ What seeds do bats spread that birds do not? (Capture some birds and bats and keep them and feed them until they empty out. Then let them go. Who is passing what seeds?)
- 2/ Do bats really make that much of a difference in the insect populations? Let’s conduct tests. We will eliminate the bats from a test area and see how much insect populations rise.
- 3/ Do bats swallow seeds, or do they spit them out. Which plants are completely dependent on bats for pollination or seed dispersal?

### **How to slash bat disease without killing all the bats**

- 1/ Regularly test bat populations and cull the sick.
- 2/ Break up the large caves. Maybe we have these styrofoam sandwich mini bat caves: mini-igloos, fiberglass covered and can be carried in on a litter by 2 or 4 men. They also probably have a human door and a human window. Maybe we put lots of these in front of the bat caves before we net-over the cave entrance at 2:00am. Then when the bats return, they go to an igloo to roost. Then we spread the igloos around.
- 3/ Use two-part “key-lated” (chelated) poison in live bait animals to only kill the vampire bats and remove these 3 species from the wild. Dark goats on even days, light

goats on odd days. Bait animals unharmed, blood sucking mammals dead.

### **Maybe it is just a few species of bat**

only a few species of animals have been domesticated by men and are now our symbiots. Likewise, maybe only a few species/families of bats have evolved nearly all the major disease families.

### **Bats feed in 8 different ways**

- 1/ Fruit eaters.
- 2/ Flower feeders.
- 3/ Flying insect insectivores.
- 4/ Ground insectivores.
- 5/ Vertebrate carnivores.
- 6/ Fish eaters.
- 7/ Blood feeders.
- 8/ Omnivores.

How many human diseases does each type of feeder carry on average? We should have numbers on which species are the most problematic. We should also study what happens when we remove the bats from the wild in isolated areas.

Because of their disease network, bats are actually one of the most important animals to know about, especially for health care people. Let’s not kill them all before we have a chance to study them.

### **Bats are running so fast**

Apparently bats run a fever of up to 108°F (42.1°C) when they fly. So bats may not need much of an immune system. They might be simply outrunning most pathogens. Also bats seem to have evolved to help their protective pathogens, to keep them alive. So bat immune systems should get more attention. Also worth considering is bat longevity in relation to their high metabolisms.

### **Bats don’t get cancer much**

- 1/ Perhaps their metabolism and immune system protects them from the pathogens that have attenuated into causing a late life cancer.
- B/ Perhaps it is that their immune system can be more sensitive to cancer because it doesn’t have other threats.
- X/ I think it is probably only A, but I would not rule out that B is also happening.

### **Evolutionary perfection**

**In every life form we see incredibly well-prototyped designs, constantly testing every life form for adaptation. This to me is what evolutionary perfection means.** There is a sort of perfection of evolutionary adaptation, a sort of uniform quality to all of nature’s living creations. This is akin to the accuracy of our senses as confirmed by their mutual confluence and their ability to keep us safe while driving.

Now, where we see health conditions that run against this perfection, and end many lives early, it probably isn't a genetic flaw. Instead, it probably is pathogenic. We say this because pathogens commonly/ normally cause malfunctions in their hosts as they push towards their often diametrically opposed use for their host's flesh. Also, this biological relationship with regard to native perfection and parasite created errors works nicely as a metaphor of Ishtarian parasitism.

### **Bat counter-attenuation network functions**

- 1/ Counter-attenuate powerful mammal pathogens to protect the bats from predators like cats, raccoons, foxes, and skunks.
- 2/ Rapidly spread diseases between and among mammal species. This is another form of counter-attenuation.

### **The bats at the center of the huddle**

There is often a concentric element to bat huddles. Let's use super-accurate infrared thermometers to monitor the body temperatures of the bats in huddles. Are there a few super-hot infected bats in the centers of the huddles that feel good to be next to? Are all the bats the same temperature? Are the bats at the edge colder? Is there an economy of fever going on here? Will bats huddle around an electric heating element? How much higher are bat disease loads in the morning?

### **Summoning the pathogenic demons**

Bats with their small guts and high metabolisms can get desperately hungry after only one night. Perhaps their immune systems then start "summoning the demons", the pathogens, by helping the pathogens to surface. Perhaps we should lock the bats in for a day before we collect samples

### **Bat diseases as memetic programming**

Did bats evolve to exchange diseases the way humans evolved to exchange ideas? Consider the saying knowledge is power — Knowing many ideas makes you powerful. For bats that saying might translate as: Diseases are power — Carrying lots of diseases makes you powerful.

### **The right way to find bat diseases**

#### **How to monitoring bat populations for diseases**

The correct way to to monitor bat populations for diseases is to get the bats from the bigger colonies, feed them well for three days with no activity in a cool place. From day 2, they also get immunosuppressants. On the fourth day they get no food. On the fifth day they get a blood draw and euthanized, then we swab their openings and cut off one lower incisors, including some gum tissue. The bats must be destroyed after this because they have been "germ-weaponized" and are too dangerous to release.

### **Collecting bat samples correctly**

When we look for new bat pathogens around bat teeth, we might want to try and simulate, or exceed the force of a bite so the stuff inside the tooth socket will come out. Beware, there may be very nasty pathogens here. Also maybe we concentrate on bats with particularly red gums prior to giving immune-suppressants.

### **Bats as creatures of chronic infections**

Bats are already out-running pretty much all the mammalian diseases due to their fast metabolisms. If they are carrying an infection, it is probably a symbiot like the one in the always-deadly-pathogen in Komodo dragon saliva — a symbiot that the dragon lizards support and definitely benefit from. Bats are known to carry a great many such symbiotic pathogens that kill the animals they come in contact with, in various ways.

### **Immunology and 6 degrees of separation**

The idea that everyone on earth is separated by only 6 degrees of separation is a simple concept to get your head around. Most Americans have had close to 1,000 classmates by the time we have left high school. And if we count, teammates, co-workers, acquaintances, etc., the average American has been in direct contact with well over 1000 people. However, for the sake of this article, let's just assume that the average person has only 1,000 acquaintances. And because each of your acquaintances also has 1,000 acquaintances, the average person has somewhere on the order of 1,000 x 1,000 (one million) acquaintances of acquaintances (2 degrees of separation).

If we go to 6 degrees of separation, we have 1,000 x 1,000 x 1,000 x 1,000 x 1,000 x 1,000 acquaintances of acquaintances. This is equal to the number 1,000,000,000,000,000,000 (one quintillion people). In a world of (7,000,000,000) people, where everyone has met only 1,000 people in their lifetime, 6 degrees of separation amounts to 142,000,000 times the population of the earth.

Now during ancient times, human communities were much smaller and much more isolated. So in ancient times, humanity's degrees of separation number was much higher. And from ancient times until quite recently, the number of degrees of separation has been collapsing. Until just 400 years ago, humanity was separated by hundreds of degrees of acquaintance separation, with more than 95% of all people lived on isolated farms. In fact 500- odd years ago, (prior to Columbus discovering the Americas) huge segments of humanity were entirely cut off from other parts. So, at the dawn of history, humanity was separated by thousands of degrees of separation — Now we are separated by four or five.

Until quite recently, most diseases spread slowly and were subject to natural selection as they spread. The pathogens that were so virulent that they killed their hosts within hours did not get very far. The pathogens that took

longer to kill got further. The pathogens that didn't kill got farthest and largely took over the virulent killers as the disease species.

As humanity started collapsing degrees of separation a couple hundred years ago, our species experienced (and caused) a unique immunological event in the animal kingdom. The animal kingdom not only lost pretty much all of the immunological protection that degrees of separation once gave it, but it also suffered mankind entering every ecosystem on our planet as hunter/exploiter, coming into contact with nearly every other species on the planet.

This collapse of degrees of separation should be one of the most fundamental ideas in historical epidemiology. It has little-doubt affected the virulence of all epidemics of recent centuries.

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### **A dog's sense of smell**

The canine sense of smell seems to have primarily evolved to track prey animals by their scents. But there were also certainly evolutionary pressures for the dogs to tell one disease or health condition from another, helping the dogs to:

- 1/ Avoid infections that might sicken them.
  - 2/ Discern the truly weak from the somewhat weak.
- Enabling the canines to become symbiots — by culling the unfit, rather than being indiscriminate predators. Thus more predation could occur and canine populations could increase.

### **Dogs learn negative associations with illness smells very fast**

Let's fill a district with lots of pre-diabetics mixed in with healthy people. Many people bring their dogs here each day for a while to see if the dog takes to the training. Everyone in this community has an identical dog treat for each dog that comes near, and the dogs are all conditioned to be hungry at this time of day. And while everyone has a treat, the dog is only given food from the normal people. From the pre-diabetics and diabetics, the dog gets a mild bark collar shock before he can get the food. After a short while, the dogs will run from people who are pre-diabetic.

- 1/ We can perhaps do this with schizophrenia and other diseases where we are clueless about their etiology. Finding asymptomatic people that most schizophrenia dogs take for schizophrenic might help us understand the disease better.
- 2/ A corps of detector dogs will be the easiest and best method of early detection in many diseases.
- 3/ We can train thousands of dogs at a time to do this, for almost no money, and on an informal basis.
- 4/ We can train thousands of dogs at a time to do this, for almost no money, and on an informal basis.

### **Dog bites are so common**

Each year, 800,000 Americans seek medical care for a dog bite. These people are at risk of rabies, pasteurilla, staph, strep, and capnocytophaga. Surely there are other undiscovered late-life "detective diseases" that dogs tend to carry.

### **Asymptomatic COVID**

Why have no symptoms at all? Why not a tiny viral load and more shedding? It may be because dogs and other animals can then smell the COVID and learn to avoid it.

### **Train dogs to detect COVID ...and you've got it made.**

### **Fast killing pathogens probably stink**

They might have evolved to stink as a means of protecting their hosts. If so we can easily train dogs to detect these diseases.

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### **That cold may give you cancer in 30-years**

There are a great many late-life diseases that seem to come from pathogens that merely sickened us decades earlier.

### **COVID & high blood pressure**

The COVID virus enters the body through the ACE2 receptors that regulate blood pressure. And high blood pressure does help blood pathogens spread. So high blood pressure looks like it might be from an infectious agent like COVID. We should figure out which viruses attach here, or to the ACE1 receptors, because there's a reasonable chance that one or more of these pathogens are the main source of late life high blood pressure.

### **Is high blood pressure from a pathogen?**

If a pathogen elevates blood pressure, the individual becomes more stressed and aggressive and likely to attack and infect other animals with the blood disease. It is rather like how Rabies makes dogs "mad". But with high blood pressure, this goes on for many years. So pathogens definitely would have benefitted from causing high blood pressure.

### **Does stress activate high blood pressure like it activates Herpes?**

**Stress** is known to "activate" Herpes and cause outbreaks in a person. Perhaps **stress** also causes high blood pressure "outbreaks" in people infected with a high blood pressure. Perhaps **stress** in infected people raises blood pressure, which raises **stress** in a feedback manner. It is not hard to imagine that predator diseases might have evolved to amplify the **stress** that is already present in host animals. This way, the attenuated

pathogen was only **stressing** the host a bit, and was hard to detect by smell. Thus these pathogen individuals survived and became the species.

### **Fever as disease**

Maybe some pathogen attack the body's ability to regulate temperature in order to kill the host without making a funny smell

### **Clotting diseases of late life**

COVID definitely causes clotting issues. When it eventually attenuates, it might cause clotting much later, perhaps decades later in life. So here we imagine a route for a delayed onset clotting disease dispersed/ spread by a pathogen much earlier in life. Another way to look at it is that many young people that had mild COVID symptoms today, may in their old age suffer severe symptoms from COVID in the form of high blood pressure. Also, blood clotting proteins are linked to arthritis. So perhaps some types of arthritis are from an attenuated blood disease.

### **Clotting diseases & diuresis**

Think of how sometimes when you're sick, you suddenly start producing urine in one giant cascade that comes with the onset of a fever. This seems like a clotting disease thickening up the blood, so you smell like you died of a blood clot, and not of the virus

### **It smells like sickness**

Notably, this sort of illness frequently comes with other symptoms, like a viral infection of the sinus and lungs. This often leads to a bacterial infections that occasionally kill, and these animals smell nothing like they died of the virus. Otherwise predators will avoid that smell and the pathogen will not spread so well. We all know how evocative smells are of times in our own past. That is how animals learn smells.

### **COVID and people with high blood pressure**

According to the CDC, around half of COVID hospitalizations are/were people with high blood pressure. Perhaps a different pathogen caused that high blood pressure by damaging the ACE receptors. Now perhaps a second coronavirus infection is causing even more damage to this system, fatal damage.

### **COVID mortality by BP graph**

It is widely known that high blood pressure greatly increases COVID mortality. A little statistical granularity is easy to put together, and it might be very useful. On the X axis we have the last recorded BP prior to the COVID infection. And on the Y axis we have the mortality from COVID. There are two super-imposed lines, one for prior systolic and the other for prior diastolic BP.

### **COVID & stroke**

COVID definitely attacks the inside of blood vessels, and this produces strokes in some patients. Perhaps some elder strokes are caused by similar blood pathogens that have attenuated to the point where they are only causing aneurisms and strokes decades later.

### **Viruses & cancer**

The way viruses damage the genetic material of cells is known to be a big source of cellular malfunctions. Apparently the viral gene splicing produces errors, and frequently the same errors, the same sorts of cancer. So we should expect that some of today's viruses will tend to cause cancers in later decades.

### **Harmless bug, or late onset fatal**

Perhaps a "harmless" cold in our youth will kill us 50 years later. Sometimes it is a virus introducing a mutation that will much later develop into cancer, or perhaps the infection will cause heart or vascular scarring, or stroke decades later. It is not hard to imagine pathogens evolving to cause infections that cause certain sorts of scarring that leads to certain sorts of heart attacks and strokes late in life. We really should step up our analysis of damaged tissue in heart attack sufferers and stroke victims. What pathogen DNA do we find here in the damaged tissue?

### **Detective diseases**

The pathogens that strike quickly are easy to see. The attenuated late life pathogens are much harder to recognize.

### **Tumors are not disorganized no matter how they look**

The disorganized nature of tumors isn't a cell rebelling, it is a pathogen managing to hide its smell so that it can kill by stealth. So tumors are actually very well organized — organized only to hide the smell of the disease that caused the tumor, so the host animal will be more likely to be eaten by a predator and spread to new territory.

### **Pathogens keep adding new ways to kill and spread**

There is also pressure on each pathogen to keep multiplying the number of ways that it kills. This is so that predators can't get a fix on the exact smell of the infectious pathogen. In one animal it smells like one sort of cancer, in another animal it smells like something else. In another animal, it smells like arthritis. From this position, the various common pathogens might look like shapeshifters... With this in mind, the various ancient pathogens have an advantage of the newer pathogens. They simply have more tools in the toolbox for killing hosts.

### **Various diseases and shingles**

Which diseases are less common in people who have never had chickenpox? What about people who have had a shingles vax? Maybe we should also give anti-virals to kids when they get chickenpox, this is to reduce the



severity of the disease so it will not come back late in life as shingles.

### **The German approach for expensive vaccines**

Step 1: Go to doctor and get vaccine prescription

Step 2: Get prescription from the pharmacy of your choice.

Step 3: Return to doctor for injection.

Step 4: The needle is drawn in front of the patient.

This approach is a bit slower and more cumbersome, but it is more likely to be honest.

### **How does antibiotic resistance occur?**

Is it mostly a matter of increased dormancy on the part of the bacteria? Given the way bacteria go dormant, chronic infections might be better treated by a course of antibiotics followed by one prophylactic dose every other days to keep the infection from returning while at the same time outlasting the dormant pathogen individuals.

### **Lure 'em out with immunosuppressants**

Are some hard to treat diseases like herpes, HIV and TB better treated with a course of anti-biotic/anti-viral followed by a some hours of immunosuppressants.

### **A post anti-biotic blood test**

Maybe a real good way to reduce anti-biotic resistance is to test everyone after their course for the presence of the bacteria they tested positive for. I bet a paper blood test kit can spot relapses hours before most people can feel they are relapsing. Maybe everyone has to go a certain time after their last does. Maybe they have to go to a pharmacy and give a drop of blood. I bet we can tell long before people even feel bad again.

### **Turning infections on and off**

It is well known that bacteria go dormant when faced with stress. We need to figure out how the bacteria know to go dormant. If we know this, then we may be able to:

1/ Trigger dormancy with some harmless drug.

2/ Turn-off dormancy so our anti-bacterial drugs work better.

3/ Maybe we can use immune suppressants combined with antibiotics to lure the chronic bacterial infections out and kill them once and for all.

4/ Do sulfur sponging drugs increase the effectiveness of antibiotics?

### **Addicts, old gay men, and virgin**

The late-life illness statistics for these groups should be studied closely because every departure from the norm points to a contagious disease or lack-thereof. Is there a higher or lower rate of any late life disease in any of these groups? What late life conditions are virgins free of? What about remote people who have never been around a large group of people? What about New York subway passengers? What about people who let lots of dogs lick them on the mouth.

### **What polyps, aneurism, and strokes are**

Some pathogens infections cause one side of a cell membrane to become inflamed and grow faster than the others. This causes a bulging which results in a polyp. With blood vessels, the aged and broken polyp is called an aneurism. With the brain, it is called a stroke.

### **The cholesterol deposits that supposedly cause aneurisms**

If aneurisms are caused by pathogens, then the arterial plaque deposits look like the pathogen armoring itself against the immune system with a shell of calcium and cholesterol from the blood. So the plaque doesn't actually cause the aneurism per se. Instead it acts like a limpet or abalone shell, keeping the immune system out and allowing the pathogen to thrive at that site. Then this local thriving pathogen community will often cause a polyp. True "bulb" polyps are apparently even better at keeping the blood and immune system out. Once these have developed, the pathogen can reactivate, and the immune system simply can't easily reach it.

### **Aneurism treatment**

1/ If polyps and aneurisms are pathogenic in origin, we may be able to use a test to detect the bacterial proteins in the blood.

2/ Maybe we can use an angioscope to focus UV/ laser/ heat/ microwave/ cold or antivirals to kill local vascular infection if the plaque/ polyp is not too advanced.

3/ If the plaque is advanced, then perhaps we can use a mild acid squirts interspersed within a suction nozzle to remove the plaque. This like we do with the lemons and electric kettle build-up. But this seems unlikely except under suction due to the risk of break-away plaque in the bloodstream.

### **Dental plaque**

Can someone analyze dental plaque and see how it varies. Maybe we should be getting this scanned every few years to see if it indicates any problems.

### **Diverticulitis**

This looks like a pathogen that embeds in the gut wall, but apparently cannot use the circulatory system. Once embedded, the pathogen either irritates or kills the cells where it embeds. If the pathogen merely irritates, this eventually causes a polyp to form. The pathogen also seems to have evolved to use sugar to rapidly form gas, before it can be digested. This results in gas which causes the polyp to pop out into the peritoneum where it creates a cul-de-sac for itself that is safer from the immune system. Eventually the pathogen goes into kill mode, causing the gut to perforate, killing the host after many years. Then the host is eaten and the disease spread.

### **Gut flora transplants**

Sprinkling crop seeds in the middle of a forest doesn't work. The trees must be cut down before the seeds are planted. Otherwise the trees will get all the light and the seeds will not grow. Perhaps in a similar way, the surface of the gut must be cleared of existing bacteria before the new bacteria can be expected to take hold. Maybe we need to use a water spray or UV kill off the existing flora in a few spots, so the new healthy transplanted flora we apply can take root.

### **There should be gut flora treatments**

Why can't I restore or supplement my gut flora biome? Why does that not exist? Why is there no research comparing the people with digestive disorders with the various gut flora ecosystems? Why is there no talk of this?

### **Blood pathogens and vascular disease**

When the blood pathogen gets into another animal, it is racing against time and being recognized by its new host's immune system. So for many blood pathogens, it makes sense to attack what they come to first: vascular linings. Here is where the pathogen gets a first toehold, perhaps its biggest toehold — before the immune system responds. Here is where the pathogen can establish a citadel for itself and change into slow vascular sabotage mode. First it builds up arterial plaque as a shield. Then it ramps up irritation of the blood vessel, eventually producing an aneurism pocket to use for hiding its offspring. Then the aneurism ruptures and kills the animal, "100% naturally", with not a hint of disease odor.

### **Bats connect periodontal & vascular disease**

The blood pathogen migrates to the bat's teeth and makes them bleed.

### **Painful teeth are a symptom**

Wherever we see infectious disease accompanied by painful teeth, we should note the symptom as this implicates a blood disease. Also, the salivary glands and nearby periodontal areas are another good place to look for otherwise undetectable predator diseases. The under the tongue salivary gland (a squirting gland) should tend to have other diseases still, hissing diseases perhaps.

### **Bats with bleeding gums**

If nature favors bats that spread diseases best, then perhaps the bats that occasionally bite mammals have evolved to support an infection that causes chronic oozing periodontal bleeding. So when the bat bites, its blood mingles better (in two directions) with the blood of the victim. Thus diseases can transit via the blood of the bat directly into or out-of the blood of other mammals. We really should be culturing bat oral pathogens and looking for the same thing in human oral cultures. Also, maybe we should do some studies about what percentage of bats transmit diseases with one bite.

### **A close up on vampire bats biting victims**

1/ We imagine infected bat fangs that are not needed for chewing because the bat is wholly focused on blood drinking. These teeth are only needed for one bite in 24-hours, mostly. So these teeth don't have to be very strong. So we imagine the bat's tooth sockets as being perhaps spongy and chronically abscessed and full of infected blood. This starts oozing out when the bat bites and applies pressure to its teeth.

2/ When the bat's infected and bleeding teeth bottom-out in skin of the victim, the bat keeps biting. Thus the bat's blood is pressed out of the tooth socket and directly into into the wound of the victim.

3/ We imagine that the bat blood has evolved antibodies or some other means of coagulating its blood and bonding on contact with the victim's open tissue. This is perhaps accomplished by a bat symbiot microorganism. Also, perhaps this blood binding pathogen is the cause of the clotting issues that COVID and some other blood pathogens cause.

4/ The exact mechanics of vampire bat biting should be studied under high speed video, especially with infected teeth.

5/ A great many otherwise hard to spread diseases seem to regularly flow into this species and that one thanks to the global bat disease network.

### **Vampire bat teeth**

The small fangs close together in the front seem to be for thin skin. The longer teeth in the back seem to be for thicker skins like cow hide. There are only a few teeth because vampire bats have chronically bleeding gums to facilitate disease transfer in both directions. The energy burden of chronically bleeding teeth is reduced by eliminating unnecessary teeth.

Also, when bat species evolved to have missing teeth, it suggests chronically bleeding gums... which evolved to better transfer biting diseases in both directions. Perhaps we will realize that these species need to be culled in the wild because they are a key factor in transmitting diseases.

### **What bats pathogens need for spreading**

1/ Mouth ulcers have what bat diseases need.

2/ Cold sores have what bat diseases need.

3/ Chapped lips have what bat diseases need.

4/ Nose bleeds have what bat diseases need.

5/ Bleeding gum disease and tooth decay have what bats diseases need.

6/ Coughing asthma, and damaged airways have what bat diseases need.

7/ Sneezing and nasal sneeze allergies have what bat diseases need.

8/ Urinary tract diseases have what bats need especially when they cause infected urine to spray and get airborne more easily.

9/ Frequent urination has what bats need when it causes

urination during the night and infection of the other bats when they are gathered.

10/ Sleep disorders have what bats **pathogens** need. This gets the bats up and active at night when the other bats are gathered around to sleep. These then are exposed to infected urine, thanks to the frequent urination. The smell of urine also helps predators to find their prey more easily.

11/ Night time acid reflux burps have what bat diseases need... body fluids airborne.

12/ Farts have what bat diseases need... body fluids airborne.

13/ Diarrheal illness has what bat diseases need.

14/ Rashes have what bad diseases need.

15/ Bed wetting has what bat pathogens need. Maybe this is from an infection. What if there is this pathogen that infects young bats and makes them incontinent for life, but only while they sleep. But it only expresses in 1-in-1,000 cases because it also spreads other diseases and burdens the bats quite a bit. The pathogen should be present in the urine. Is there any extra pathogen in the urine of bed wetters? What about urinary tract nerve tissue? How is this tissue damaged by pathogens? Does this teach us anything about other parts of the nervous system damaged by pathogens.

16/ Tooth destroying bruxus (teeth grinding) has what diseases need.

17/ Itchy skin and bloody rashes have what blood pathogens need. Anything that makes the skin itch is probably pathogenic because the itching leads to the better dispersal of the pathogen. What are the pathogens that cause mosquito bites to itch? What about flea bites? What about lice? We should know which pathogens are doing this, and we should know what Other problems they cause. What are the bacteria or pathogens that fleas carry and that mosquitoes carry that make their bites itch? Which biting insect pathogens produce other harm? Are biting insect more attracted to people who travel a lot? Do they get more bites?

18/ Arthritis has what pathogens need.

19/ Blindness has what pathogens need

20/ Lack of smell/taste has what pathogens need.

21/ heart disease has what pathogens need.

22/ neuropathy has what pathogens need.

23/ Heavy menstruations have what pathogens need  
The host is weakened and anemic periodically. She passes clots that get sniffed by predators.

### **What blood diseases need**

All of the following help animals die without smelling funny:

1/ Dry eyes and indeed all eye diseases have what blood diseases need if they make a prey animals blind, so they can die without smelling funny.

2/ Tinnitus and deafness have what blood diseases need if they make prey animals blind, so they can die without smelling funny.

3/ Peripheral nerve damage has what blood diseases need if they make prey animals insensate, so they can die without smelling funny.

4/ Attacking the fingers of the front paws has what blood diseases need if they make prey animals lame, so they can die without smelling funny.

### **Dry eyes pathogens**

1/ The correlation between dry eyes and corneal detachment does not seem to be studied enough. Perhaps dry eyes are from a hit and run infection that sheds almost no copies so as to kill the host in totally natural smelling way.

2/ If you get dry eyes at the same time of day, every day, even if you stay in a hotel, then a pathogenic origin is suggested.

3/ Does exposure to sunlight help with your dry eyes? If so, then a pathogenic origin is suggested.

4/ Is it better to consume synthetic Vitamin D and avoid sunlight? Or does the UV light in the sunlight act on the infected eyes? We should know this.

### **Sunlight and diseases of old age**

Which diseases of old age are less common among older people who are regular sunbathers? Which are more common among older people who exercise but do not get much sun?

### **Gout, big toes and hooves**

The otherwise puzzling way gout attacks the big toe makes more sense when we realize that hooves are a homologous organ with big toes. In other words, gout looks like a transgenic pathogen that attacks the "big toe" joints of animals with hooves. So perhaps gout comes from contact with certain hooved animals. Furthermore, the similarities between gout and arthritis also implicate arthritis (and indeed much auto-immune disease) as possibly having a pathogenic source).

### **Pathogen causing arthritis and psoriasis**

Look for the pathogen and psoriasis and some psoriatic arthritis joints. And if arthritis is pathogenic so is the psoriasis.

### **The arthritis/bone niche on the game trail**

Here the viral load is concentrated in the joints of the animal, so the pathogen here seems specialized for scavengers mostly. Rather, we seem to have many diseases that are expressing towards joint location, and this is why arthritis is so variable. This may also be where osteoporosis is from.

### **Chronic diseases that return when the host is stressed**

Many chronic diseases are set off by **stress**. Here it seems to be that the pathogen evolved to rapidly multiply, and increase viral load when the host is **stressed**. This focuses the limited bio-energy of the pathogen and increases the chances of infecting a predator. Chronic

diseases that “go-off” and rapidly emerge with **stress** are implicated as pathogenic in origin.

Here also is a model for understanding the connection between **stress** and inflammation. It is that **stress** causes pathogen loads to increase, and this results in increased inflammation.

### **Excessive stress response**

It seems that the body’s excess **stress** response can wear out like its excess sugar response. So perhaps our **stress** response should be viewed as another aspect of the body that can wear out. Perhaps ACE-2 pathogens help our **stress** response to wear out faster.

Perhaps to find pathogens associated with certain diseases, we take an arthritic rat, for example, and put it in an extremely, stressful situation, and kill it and then we look over the next day or so for which pathogens exploded in viral load. Maybe those are the pathogens that are spreading via predator prey relationships. And maybe certain of them are associated with certain conditions like arthritis, Alzheimer’s, etc.

### **High blood pressure kills by stealth**

Here is a pathogen killing some of its host in a way that probably doesn’t smell like an infection. In fact, it may smell just like a very **stressed** prey animal dying of old age.

### **Chronic diseases that return with dietary changes**

Many chronic diseases are set off by dietary changes. Here it seems to be that the pathogen evolved to rapidly multiply, and increase viral load when the host migrates into a different habitat with different foods. This increases the chances of infecting other animals and conserves the limited bio-energy of the pathogen. Thus these more efficient versions of the pathogen tend to become their species.

### **Johne’s Disease**

Many cattle diseases like this one will mostly be conquered if the cows are constantly moving as a front by an electronic herding device. That is to say, if they are not eating each other’s waste.

### **Overlapping symptoms, or Giant stores that sell everything**

Think of how Walmart, Target, Cosco, and others seem to sell everything. Maybe through conjugation, and bats sustaining multiple protective pathogens, the various bat diseases tend to have more of a general store approach to the way they attack the body. Perhaps so many diseases have overlapping symptoms because they evolved from the same bat networks and thanks to conjugation share much of their DNA, particularly the more effective traits.

### **Why Vampire bats are particularly dangerous**

1/They drink the blood of animals, and this mingles with the blood from their bleeding gums. Then they often drink each other’s blood, mingling blood, forming a blood mingling network. Then when they bite the next animal to draw blood to eat, they mingle blood from their bleeding gums. So vampire bats create a blood-to-blood network for spreading hard to transmit blood diseases like HIV. In fact, HIV’s difficulty of transmission points in no other direction better than it points towards blood drinking bats.  
2/ Many pathogens may start out in the bloody periodontal areas of vampire bats, where they don't need to travel anywhere to infect the animals. Then they evolve to make the jump from burdensome bloody teeth, to nearby salivary ducts. Then they evolve to infect the sinus, lungs, and gut.

### **Which bats carry which fleas?**

Can bubonic plague fleas be carries on bats? Which fleas, lice and other blood sucking insects live on bats?

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### **Zoonotic Isolation**

The cost of isolating the pigs, bats, insects and other vermin is a tiny fraction of the short-term health benefits this will bring. And that is to say nothing about the later life health benefits.

### **Stop the infections**

Reducing the number of lifetime pathogen infections is probably the biggest and easiest thing we can do to reduce late-life disease.

### **Teaching the immune system**

Maybe this isn’t necessary. Maybe we eventually realize that:

- 1/ Most old age diseases come from a few germ-warfare species like bats, pigs, and oversized rodents.
- 2/ People should avoid these animals when they have not been farmed properly.
- 3/ There should be punishments for people who take risks with all mankind to taste some rare animal’s flesh... flesh that tastes a lot like other meats.

### **How pathogens accelerate aging**

Many pathogens are never completely eliminated. These go on, each slowly killing cells in various parts of the body, which get replaced more often than normal, thus the pathogens accelerate the aging process in a focused way.

### **Nervous system pathogens**

Like everywhere else, these pathogens can slow down, but only to a point, and many need to kill cells so they can live. This tends to cause the cells to age and die off.

## Neurological diseases of the heart

Perhaps a lot of heart conditions are actually neurological conditions that cause the heart to stop. I bet to a lot of predators this smells just like a natural old age death.

## Stress responses and infections

Does occasional extreme stress, anger and rage work as a treatment of neurological diseases? Are there any game-trail pathogens that stress tricks into not harming their host?

Perhaps some pathogens have evolved to confuse a stress response with an immune response. Or perhaps many pathogens have evolved to back off when the animal is having stress responses — because these conflict animals are coming in contact with other animals and spreading the pathogen around to fresh new species. So the pathogens that back off on the presence of the stress chemical out-spread the others and become the species.

## Think of pathogens as networks

They may reproduce asexually, but there still is enough variety in their offspring to probe millions of survival options all at once through trial and error. So try to think of bacterial populations as networks with primitive feedback capabilities such as the ability to respond to fat times as well as thin times. Also, it is entirely possible that all viruses or all bacteria activate when any of a few biomarkers is present. Or perhaps they back down when any of a few biomarkers is present.

## Spoofing pathogens

What body hormones and chemicals are present when the various pathogens activate and back off? Ultimately we will make these and spoof our guests.

## The benefits of deleting the bat caves

This will not only increase human longevity, but it will also reduce health care costs. It will also end of all fast evolving mammalian diseases like colds and flues. Bats are also probably where the malaria plasmodiums acquire super-virulence. Its just a hunch, but I bet bird and reptile malaria kills much less than with mammalian malaria, particularly with skunks, foxes, and cats. If this is so, then the added virulence is from bat involvement in the evolution of malaria. This is because these are the most bat-involved mammals, judging from their high rabies infection rates.

## Malaria kill rate for various animals

What percent of malaria exposed animals of each species die and get sickened upon exposure to malaria, to dengue, and to the rest? This points to certain species as disease reservoirs.

## The skunk-bat network

1/ The skunks are very easy for blood drinking bats to find when they are starving.

2/ Skunks are a top rabies carrier.

3/ Skunks stink all the time, and thus they invite predators, yet they survive. Look at rabies, they also sometimes use bat bioweapons.

## Bats and skunks

Quite a few species of bat seem to drink always easy-to-find skunk blood when they are very hungry. We should do a long term survey on the infectious diseases that skunks carry.

## Alzheimers & herpes

Herpes infects the nervous system. Herpes is also found in higher levels in the brains of people with advanced Alzheimer's disease. Perhaps it is one of a few attenuated nerve diseases that cause peripheral nerve disease and Alzheimers.

I bet nearly ubiquitous chickenpox is responsible for some form of Alzheimer's disease and probably the most common form of peripheral nerve disease. Likewise with the herpes viruses. I think what we call Alzheimers is really just the sponge wood that is left.

## Glaucoma & herpes

Not only is glaucoma a disease of the nerves, but those with herpes infections are more likely to get glaucoma. Maybe this occurs where the virus first infects the eyes. Or maybe it is from another pathogen that comes from the same place as herpes.

## Heart disease & herpes

Maybe some sorts of heart disease are from a pathogen causing a failure of the autonomic nerve cells in the heart. This kills a host on the game trail without any distinctive smell for predators. Notably, the host does not die of the disease, but of the nerve failure caused by the disease.

## Is some heart disease a sort of neuralgia interfering with the normal electric signal reaching the heart?

## Heart palpitations

Is this from the kidneys being unable to metabolize sodium well, and thus the person becomes depleted for potassium, with palpitations being the result.

Does some acid reflux come from stimulating the vagus nerve with very hot showers?

Do adrenaline receptors get worn out from caffeine use?

## Nerve deafness & herpes

The host dies because it has slowly become deaf or slowly developed tinnitus, not because it has a raging infection — which will smell funny to predators.

## Attenuated Rabies

The most common way that deadly pathogens attenuate is by down-clocking and killing in decades instead of days

or weeks. So if we started with a Rabies-like disease that ate up the nervous system and produced madness in weeks and months: What would that look like if it attenuated to a decades time scale? It would look a lot like senile dementia, wouldn't it?

### **Senile dementia / Alzheimers**

Maybe this is 4 brain and nervous system pathogens that have all attenuated and produce vaguely similar mental decline symptoms via different mechanisms.

### **Curing alzheimers**

The pathogen has been playing Jenga with the mind for decades. And now that the tower is wobbling you want a cure? The time to prevent Rabies is in the early stages of the infection.

### **Peripheral nerve damage = Playing jenga with the nervous system**

Nerve cells don't recover from infections well. So nervous system pathogens tend to be degenerative. The only question is how fast?... And which nerve cells get killed first?

Some nervous-system pathogens have evolved to kill peripheral nerve cells first, and to kill them slowly. Either that or they mostly go for the unused cells, unless they are all gone. But this killing of the peripheral nerve cells is how the pathogen keeps its host alive the longest — the pathogen's shedding/spreading/ dispersal platform. Once a pathogen starts playing Jenga with a host's brain, it ruins the mind (as in Alzheimers) and the host dies soon after. However, before Alzheimers, there may be a measurable loss of nerve function in this or that place that serves as a herald of Alzheimers.

### **Do antivirals help slow the onset of Alzheimers?**

What do antivirals do for the onset of Alzheimers and Crohn's disease and diabetes? Are 1000 people who have regularly taken Valacyclovir less likely to develop Alzheimers than those who have not? What about diabetes? What about Crohn's disease?

### **Antibiotics causing peripheral nerve damage**

Is the antibiotic causing the peripheral nerve damage, or is the recovering bacteria killing more of your nervous system when it recovers.

### **What is senile dementia?**

Look at it from a zoological standpoint to really understand what is going on. We have this "dry rot" of peripheral (or non-essential) nerve activity. This is a disease long attenuated to the point of symbiosis.

### **Worn out brains**

Perhaps there is an absolute limit to the number of thoughts a human mind can have. Is there a correlation between mental activity and Alzheimer's. Is there simply a

wearing out of your brain aspect to Alzheimer's. Do people with exciting lives get Alzheimers more than normal?

### **Alzheimers and peripheral nerve disease are probably from a carnivore parasite**

This parasite is playing Jenga with the nervous system of its hosts. The parasite down-clocks to the maximum but it must still destroy its host's cells to live on. So it does this creating a sort of dry rot, and a hyper-aging of the nervous system focused on less essential parts of the nervous system.

### **What if Chicken Pox is a symbiot for mankind?**

What if it makes some of us smarter, like a symbiot would. It is already extremely attenuated, and it does affect the nervous system. Maybe this is exactly the niche we might expect an up-clocking disease. And maybe the Alzheimers degeneration is the result of the up-clocking.

### **Connecting sleep apnea and Alzheimer's**

They both look like different aspects of a bat disease. Sleep apnea probably helps spread the respiratory disease among huddled bats. The Alzheimers is the disease destroying nerve tissue as slowly as possible so as to stay alive and infectious as long as possible. Eventually the Jenga tower collapses and the person becomes demented or dysfunctional from Alzheimers. Then after decades of being a pathogen spreading platform, the host dies of what smells just like natural causes, so the scavenger train does not avoid the kill.

### **Make the host act boldly**

Consider the aggressiveness and boldness of some animals when they are desperately hungry — then port it to flying bats. So bat feeding probably at times has an element of aggressiveness, boldness, or randomness. And this would help spread bat diseases.

### **Rabies and boldness**

Consider the way rabies makes dogs act with bite other animals. Does rabies do the same thing with infected bats that normally do not bite? Did rabies evolve to make normally non-biting bats more likely to bite? Are there other diseases that evolved to make non-biting bats more likely to bite? Is this the source of some forms of severe mental illness?

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### **The two sorts of Super-spreader**

Most epidemics will have a short "spike" in patients, followed by a long tailing-off Like in the previous HIV graph. It is important to realize that both the short spike and the long tail have their own sort of super-spreader/

super-disperser. The super spreader of the short spike sheds lots of pathogen. The super-spreader of the long tail has a lingering infection that keeps the pathogen in the environment for a long time. Addressing both sorts of super-spreader is key to controlling a disease.

### **Viruses humidity & exercise**

Dry air kills viruses faster, but it can also cause people to develop chapped airways, which makes them more susceptible. Humid environments sustain the virus longer but do not cause people to develop airway chaffing. The worst of both occurs when someone is:

A/ Getting winded and chapped in dry air, such as a run in Phoenix, or skiing in thin dry mountain air, and then...

B/ Going somewhere moist and crowded right afterwards like a crowded ski lodge.

### **Winter sports and lodges**

The ski resorts of Colorado, Utah, Idaho, and Bergamo were all COVID hotspots before they were shut down. Look at the lifestyle. Days are spent getting winded, internally chapped and hypothermic in cold dry thin air. Then nights spent in a stuffy ski lodge bar with people from all over the world.

1/ It shouldn't be too hard to figure out if getting winded and then going to a crowded place increases one's chances of getting a cold. Let's correlate breathing rate for 10-minutes with increased changes of getting some disease, and let's study how long people must wait for things to return to normal

2/ We might need to close down all the bars and crowded restaurants in our ski areas as public health nuisances.

3/ If it is dangerous to winded and chapped in dry air and then go into a crowded place, then everyone should know this.

### **The PE class run**

How many schools require that the kids go for runs in the cold dry winter air? How many kids get hypothermic noses from this? Then 30-minutes later, the kid is in a poorly heated classroom that is kept stuffy so it stays warm enough. How much of flu season is this causing?

1/ Kids should probably exercise after school, so the micro-lacerations can seal up overnight.

2/ We should have better temperature, humidity, and air-circulation guidelines for our schools.

### **School and young immune systems**

The argument that sending kids to school will expose them to diseases and boost their immune system is untrue. If it were true, than we would find that children who spend their entire life on farms and head to the city at age 18 were having to face a year or two of sickness once they move to the city. As this is obviously not so, the idea is stupid. However, we do observe many city kids with more than their share of immune problems.

Therefore, we are compelled to conclude that urban school can harm the immune system of some kids.

### **Cold buildings are a symptom of management theft**

Many building managers stubbornly and absurdly resist reasonable calls to set the thermostat temperature down in summer and up in winter. If the manager is making this decision, the reason is normally that there is more money to siphon off. In other words, poor conditioning of buildings is a symptom of property manager theft.

### **Plagues taking the old and sick**

We have had it so good for so long that we have forgotten how it was normal for an epidemic to take the old and ill. Taking the old was normal. What happened less frequently was a plague that took many of the young as well as the old.

### **Asymptomatic kids in school**

It isn't only with COVID where kids can have a pathogen infection and frequently show no symptoms. This is the way things normally work with contagious diseases. Kids frequently get the disease and don't know it. Then due to the school classroom huddling, they become super-spreaders in the community.

### **The football huddle**

1/ Get out of breath in dry fall-winter.

2/ Huddle closely to plan.

3/ Repeat many times.

### **What is cold and flu season from?**

1/ Is it from indoor air circulating less in winter?

2/ Is it from people getting chapped in dry winter air and then going into crowded places?

3/ Is it from a colder and lower energy winter-Earth stressing cave bats and causing them to share their diseases more?

4/ Is it from a lower immune response in colder cave bats?

5/ Is it from less UV light?

None of these things would be hard to get answers on.

What a valuable thing it would be to know which of these is responsible, and which are not. For then we might be able to stop cold and flue season entirely by focusing our energies where they will produce results.

### **Mouth ulcers**

The main cause of these seems to be the sharp edges on one's adjacent teeth. The dentist can round these edges off in about 2 minutes without anesthesia. Also, having open cold sores probably makes one more vulnerable to a variety of other diseases.

### **More fever cameras**

In Asia they have many more thermal video cameras in public buildings. We should probably require these in the US at schools, airports, subway stations, and other crowded places.

### **Coughing or a runny nose**

Even if you know it is from allergies, you are supposed to wear a mask in public, just like in Asia.

### **High school biology**

How much less reactive and less infectious are the various pathogens after they dry out for 5 minutes, 10 minutes, 30 minutes? There should be a curve. It's just basic sanitation.

### **Quarantines help attenuate pathogens**

Quarantines are not only a tool for halting outbreaks, they also accelerate attenuation through natural selection.

### **Forced attenuation**

Step-1: Find a few people infected with a super-mild version of the pathogen.

Step-2: Infect 40 death row inmates with this version.

Steps-3 on: We find the mildest cases and repeat step-2.

Eventually we have an attenuated version of the pathogen which we use to infect people. This is something that we should have started doing with COVID in January of 2020. So some months later, people could have opted for controlled infection by an attenuated version of COVID.

### **Asexual reproduction leaks**

or

### **1:10,000 conjugation rates are all fast breeding bacteria need for "infinite" adaptability.**

A great many asexual reproducers seem to engage in genetic material exchange through conjugation at rates of up to around 1:10,000. This seems to be all that is needed for adaptation. This is because 2 to the 10th power = 1,024, and 2 to the 20th power = 1,048,576, and so forth. So for say streptococcus (with a 40 minute reproduction under ideal conditions), the survivors proliferate quite quickly. They can make up to:

1-thousand copies in ~7 hours, (0.1 exchanges)

1-million copies in ~14 hours, (100 exchanges)

1-billion copies in 21 hours. (100-thousand exchanges)

1-trillion copies in 28 hours, etc. (100-million exchanges)

So there is no true asexual reproduction. It is only mostly asexual reproduction, and the small amount of sexual reproduction through conjugation is all that is needed to achieve "infinite" adaptability.

### **Ambient UV**

If mid-day sunlight kills half of pathogens in a couple minutes, then even reflected and ambient UV probably creates an untenable habitat for those micro-organisms. Perhaps we can actually smell/sense this lack of micro-organisms in brighter places, vs dim places.

### **Survivors caring for the sick**

There should be videos where the recovered and immune can be taught to help care for the still sick.

### **Hot air high oxygen ventilation**

People don't burn their lungs in 45° weather, maybe oxygen-rich hot moist air ventilation will harmlessly slow some respiratory infections. I imagine these CPAP-like machines that output hot respiration air at a very precise temperature and humidity and also high oxygen levels for the purposes of treating the membranes of our airways. And maybe they add zinc or antibiotics, or anti-virals.

### **Ridiculous Coronavirus names**

Let's stop using 229E, NL63, OC43, and HKU1 for Coronavirus names. Instead let's reduce our mental overhead, and call them as Corona-1 to Corona-7. So Corona-1 to Corona-4 are common cold viruses, Corona-5 is SARS, Corona-6 is MERS, and Corona-7 is COVID.

### **Isopropyl**

Let's stop calling rubbing alcohol as alcohol. Let's drop the alcohol part from the packaging and just call it isopropyl.

### **Avoid unproductive coughing**

We should teach kids to try not to cough except when it brings something up, as this damages the airway tissues.

### **Liquor vapor cough suppressant hack**

When I don't have a cough suppressant, or can't wait for it to take effect, I sometimes use inhaled liquor vapors to anesthetize my lungs. I put a teaspoon of hard liquor on my tongue, tilt my head a bit forward of level. Then almost totally close my mouth and inhale very slowly so as to bubble or "bong" the air through the alcohol. This draws thick anesthetic alcohol vapors into the airways. I repeat a couple times until the urge to cough passes. Then I spit out the alcohol.

### **Antibiotic inhalers please**

Most antibiotics are water soluble. So one can rub a tablet into some water in the palm and create a liquid like skim milk diluted with water. I wish something like this liquid was properly studied and dosed as an inhaler. Also, these will certainly cause problems as do all drugs. It is just that they look like they might be a miracle cure for some people with chronic bronchitis or repeated sinus infections.

### **Antibiotic delivery to the lung surface**

Inhalers seem the way to go for infections of the airway's surfaces. Perhaps we will bind the drugs to a large clunky molecules that cannot enter the body like with Rifaximin. Thus the drug can be more toxic, and more effective.



## Nerve system drug delivery

When delivering drugs to the nervous system and brain, is there better penetration when a powder is slowly delivered to the tongue and oral mucosa?

## What is the critical temperature?

Obviously there is a cold and flu season when it is very cold. and obviously being in very cold environments causes people's noses to run. And obviously the two things seem connected. What is the correlation between temperature (assuming say 1 hour outside) and transmissibility for the various cold/flu viruses? Is there a critical temperature where superficial cellular damage occurs and people become more vulnerable to infections? If this is so, then everyone should know about this temperature/humidity.

## The narrow range of warm blooded body temperatures

Why is it that there are no warm blooded animals with a body temperature of 15°C? or 45°C? Why is there such a narrow temperature range?

## Zinc inhalers

Does it help respiratory infections to inhale zinc mist?

## Better inhaler sprays

For better distribution, the spray needs to occur over 2-3 seconds.

## Immune system elasticity and age

Immune systems seem to start out strong like so many of the body's systems. Then, as people age, the immune system become "in-elastic" as with the other organs and tissues. Perhaps some old people die of infections because their immune system has recently become too "inelastic" to deal with a major challenge.

## Weak links, strong links and Small world networks

The names "local-links", "leap-links" and "leap-networks" convey much more sense of the subject than the current vague terms. These terms are much more user-friendly for this important area of science. They will lower mental overhead, and make everyone smarter.

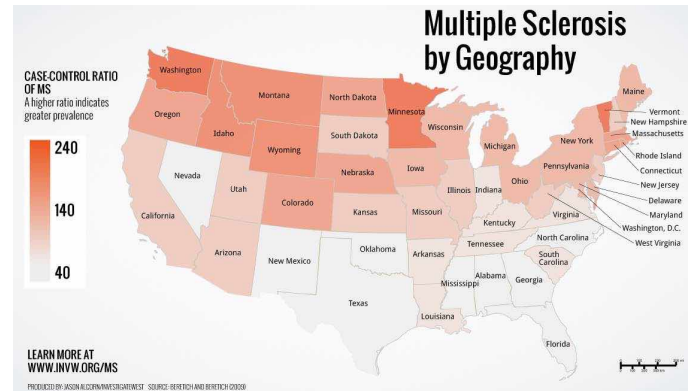
## Pathogen, auto-immune, or other

As a rule of thumb, if a disease is more common towards the equator, it looks infectious. And if a disease is more common at higher latitudes where people "hibernate", it look auto-immune.

## Auto-immune disease

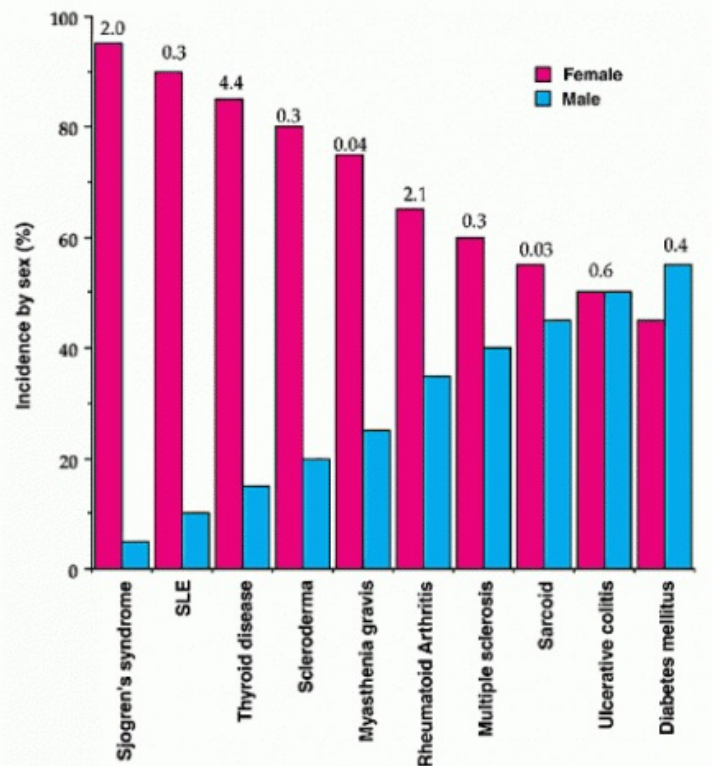
Also, females tend towards less activity than males, so they tend to get auto-immune problems more. If a disease is more common among females it also looks auto-immune.

MS is both more common at higher latitudes and more common among women. It seems to be a hibernation disease, a condition caused by a synergy between winter break and awful stay-at-home weather. The kids emerge from some weeks of hibernation and exert themselves without enough warm-up and they get an auto-immune syndrome as a result.



## Auto-immune diseases that strike women more

Females seem to have stronger immune responses. And this is thought to be due to the bearing of offspring. But maybe it is about activity level in youth. Also, the connection between low levels of Vitamin D and MS could be explained by how girls tend to stay home more than boys when it is cold. Which other diseases are both more common in higher latitudes and among people who "hibernated" or otherwise got torpid for a long time in their youth?



## Why does Pregnancy help with auto-immune disease?

1/ Not killing pregnant females is the way of fishermen and shepherds. It also seems to be the way of parasites and pathogens. When we see pregnant females spared, pathogens are implicated.

2/ Which party has evolved towards eliminating females that are not breeding? Is this from the host species evolved to eliminate non-breeding females, or is this a parasitic pathogen evolved to be more symbiotic by eliminating non-breeding females? The former seems unlikely given how human females live to be 80, but are only fertile until 40. On the other hand, the latter seems likely given that there are several medical conditions that back-off upon pregnancy.

3/ Can we simulate the “pregnancy effect” with synthetic hormones or other chemical markers of pregnancy? Can we improve on nature with our simulated pregnancy markers? Can we trick pathogens into remission? Also, maybe if we look carefully here, we can find the actual bodily malfunction that pregnancy turns off.

## Spoof pregnancy

It would not be surprising if some weeks of pregnancy and lactation hormone administered at age 40 reduced reproductive cancer rates in women. Does this reduce reproductive cancers significantly? How long is optimal? How often do we do this? Is this as any treatment suggested herein actually worth doing? Also, is it possible to treat auto-immune disease in young women with a pregnancy hormone? Which hormones work?

## Sex hormones and disease

The way estrogen protects females from heart disease resembles the way HIV-like diseases gets rid of non-reproductive males. Here again, heart disease looks like it comes from an attenuated pathogen. Do micro-amounts of estrogen absorbed during sex, reduce any male diseases? more than with monogamous same-sex males. Is it the testosterone itself that stresses the organism more, or is it actually the response of many pathogens to testosterone that stresses the organism?

## Maybe men don't have weaker immune systems

Maybe they have higher pathogen stress levels. Let's compare healthy rats kept in pure labs, vs. those given all sorts of diseases, and stressed with hunger. Lets graph the survival rate for males vs. females. I bet we find that the deadlier the disease, and more stressed the conditions, the more the disease favors females.

## Why males Suck it up better

The reason why females suffer more from mental health issue is probably related to the physical fighting strength of males. The males that couldn't suck it up died off. This is why PTSD levels are much higher in females than males.

## Auto-immune disease tips

1/ Exercise helps. But start slow so the exercise doesn't trigger an attack. Also watch you maximum heart rate. If my heart rate goes above a certain level, I get an “asthma” attack.

2/ Try visiting/moving to another continent with a different climate. I am sensitive to the dust/mold of US west coast. If I go to any other place my auto-immune symptoms are less severe.

3/ I would often carry antihistamine (4mg Chlorpheniramine Maleate) with me. If I feel an attack, I bite the tablet into powder and swirl the powder around in my mouth. It absorbs quicker through the oral mucosa.

4/ I find that high levels of dietary capsaicin not only anesthetize, but they also reduce my immune response. Just make sure that you ramp up the dosage very slowly, over maybe a few weeks, or the capsaicin may produce an auto-immune response by itself.

## Headball

Perhaps one day some doctors will sign a petition saying: “We ask that the rules of soccer be changed so that it is not allowed to hit the ball with one's head. We think that this is probably harmful, and it is so easy to simply change the rules of the game and make it truly football, instead of a brain-damage version of football.”

## Motorcycles — 1:7 Road Deaths — 1:700 Road Miles

Highway deaths were about 36,000/year, prior to COVID. Of those, about 5,100 were motorcycles. For the road miles number, just look around while you drive, but double the number for time of day, and double it again for time of year. People just don't get that motorcycles are over 100X more deadly than cars.

<u>Year</u>	<u>Car Deaths</u>	<u>motorcycle Deaths</u>
2015	35,486	5,026
2016	37,806	5,337
2017	37,473	5,229
2018	36,835	5,038
2019	36,096	5,014

Regarding the road miles you see, you might want to double it for time of year and double it again for time of the day.

## Making viruses deadly to study them

This is a dumb idea. It seems to mostly be a bad excuse for developing bio-weapons. The risk of a superbug getting out is extreme. The reward seems almost far fetched. People should never be allowed to make pathogens more virulent. It should be outlawed by international agreement.

### **Are masks outside more important?**

If the cold substantially damages our mucus membranes, then maybe covering our faces outside in the snow is more important than covering them when we return back inside and enter a crowded place.

### **The main starting points of COVID**

- 1/ It lands in the lungs and causes lung problems first.
- 2/ It is swallowed and causes gut problems first.
- 3/ It lands in the nose and causes nasal problems & loss of smell first.

There seems to be 3 main avenues for the infection to enter the body. Is one of these avenues less deadly than the others? Is there another route that is less deadly than these three.

### **The 7-headed Coronavirus family**

The highly successful Coronavirus virus disease family has 7 varieties plaguing many species of genuine life.

### **Is COVID a fresh new cold virus?**

It looks like CV-5 to CV-7 are fresh new common cold viruses like CV-1 to CV-4 — diseases that probably killed a larger portion of the population when they first appeared.

### **China's #1 Bio-weapons lab**

Wuhan is located at the biggest fork on China's biggest river. Wuhan is on one of China's main transport hubs. This is a really dumb place for a bio-weapons lab. Is this: a) Stupidity, or b) An excuse?

### **China COVID statistics**

**China: 1,400,000,000 people, 4,636 COVID deaths.**

**USA 330,000,000 people, 602,000 deaths.**

In China, the poor crowded epicenter of the COVID epidemic

we have **1-in-301,948** people dead from COVID.

In the rich spread-out US, far from the epidemic epicenter

we have **1-in-548** people dead from COVID.

(Covid numbers here as of June 21, 2021)

**301,948 ÷ 548 = 551.** So the people in the rich and spread-out adversary nation at the other side of the world have been 551 times more likely to die than in the poor crowded nation at the epicenter of the outbreak.

**China: 1,400,000,000 people, 91,629 COVID cases.**

**USA 330,000,000 people, 33,500,000 cases.**

In China, the poor and crowded epicenter of the COVID epidemic we have **1-in-15,279** people contracting COVID.

In the rich and spread-out US, far from the crowded epicenter

we have **1-in-9.8** people contracting COVID.

**15,279 ÷ 9.8 = 1559.** Thus people in the rich and spread-out adversary nation on the other side of the world are 1559 times more likely to get COVID than at the poor crowded epicenter of the outbreak.

### **Was China Immunized?**

The COVID fire burns everywhere but in China. Maybe China isn't under-reporting. Maybe China's isolation tactics are not winning. Maybe a COVID vaccine was quietly added to their other immunizations and China was immunized.

### **Our visitors from the PRC**

Are PRC visitors significantly under-represented in US statistics for COVID patients? If so, then China would appear to have been vaccinated.

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### **Diabetes and sugar disease**

1/ Diabetes is 1/7 of healthcare spending.

2/ There are 34 million Americans with diabetes (10%).

3/ There are 88 million Americans that are pre-diabetic (27%).

4/ See the staggering cost of diabetes at [diabetes.org](http://diabetes.org)

### **Diabetes is up 2-3 fold in 30-years**

In the past 30 years, the number of cases of diabetes in the world is more than doubled to 366 million. In the Arab world the diabetes rate has nearly tripled. Given that 10% of Americans now have diabetes, and this results in immense public healthcare costs, perhaps we should tax the sugar content of the things we eat and drink.

### **Engineered diabetic foods**

Is it possible to use a solution reagent to remove the fructose from our food, or change its structure to prevent its digestion?

### **Is diabetes from fructose + liver damage?**

Fructose is metabolized by the liver and not the gut. When the liver metabolizes fructose, it is turned into glucose, the bane of diabetics. Older people commonly have damaged livers gone "fatty" from years of abuse. These livers become unable to function properly and are not able to break down fructose rapidly. As a result, glucose trickles out into the bloodstream over many hours, and even over night. This results in a steady demand for insulin that wears out the insulin producing cells, resulting in diabetes.

The failure of the insulin producing cells is thus seen as a secondary effect. The primary cause seems to be damage or aging of the liver cells that metabolize fructose. This can result in overnight glucose or high morning blood sugar. This in turn keeps the insulin-producing cells on 24 hours a day until they fail.

### **Why me?**

1/ It would appear that some people have insulin cells that can operate for ~500,000 hours, while other people have insulin cells that can only operate for ~25,000 hours in their lifetime. Or perhaps most people have insulin cells that can operate 24 hours a day for decades, while others can't do this at all and their insulin cells fail when they are children. So-called childhood diabetes.

2/ Some people binge on fructose and alcohol all day until they ruin their livers. Sucrose is half fructose.

### **The many routes to an early downfall**

We should do an inventory of how people go down the tubes when they are young related to their life choices. This will include drinking, tobacco, motorcycles, sugar, over-eating, being too sedentary, meth, opiates, and all sorts of diseases. We show lots of people who have gone down this path. And they show their pictures and videos from their life so people can see the effects of the alcohol, or meth, or motorcycle accident. Maybe then young people will listen.

### **126 grams a day of sugar**

This is 4.5oz, the average US sugar intake.

### **10KG baby vs. 80kg Adult**

1- yolk = 8-yolks

10-grapes = 80 grapes

2 strip of bacon = 16 strips

Small kids won't even burp from eating these quantities, because they are still young and this sort of stuff doesn't bother them yet. But how many grapes are there in a jar of grape baby food? And what is the adult equivalent for a jar of baby apple sauce?

### **Insulin makes you hungry**

**If you don't want to be hungry,**

**Don't eat sugar.**

**Keep your insulin off**

### **Sharing mother's milk**

Supposedly even pumped mothers milk from a bottle is better than formula because important antibodies are being passed on. Is this so? Why is it so? Is it beneficial to share mothers milk between babies, so that the babies get more of these important antibodies? Maybe mothers should have pump and share communities for swapping their milk. Is it beneficial to do this? How many milk sources are best: 2? 5? 10? 20?

Surely there must be some part of the world where some of the women nurse each other's babies, and hire women to nurse their babies. If we follow, these kids, are they healthier than the others? Are there any psychological benefits to this? Do the various animal milks help or harm the baby? Also, are there some ingredients in mothers milk that can be cultured and added to formula?

### **Candida**

This comes from excessive fructose in your diet, not sugars, but fructose. And especially from overdosing on mildly toxic fructose. This leads to acid reflux, loose stool, prostatitis, candida, etc.

### **Poop scanning**

Maybe we should scan our poop for nutrients, and reduce nutrients until the unused nutrition levels drop to normal for fructose, fat, oil, protein, salt, etc.

### **Childhood diabetes**

Many mothers seem to be under the impression that they should feed their babies fruit to relieve colic/constipation. Therefore many mothers give their babies a daily dose of fruit — so much fruit that it has a laxative effect.

Here the baby is given so much fructose, that its liver is overloaded and parasitic bacteria overgrow and eat the fructose instead. This leads to inflammation and fluid which softens the stool. So, yes, if you overload a baby's liver with sugar at every meal, they will get loose stool, meaning liver overload and also perhaps their insulin system is being damaged.

Also, the reason why apples in particular have such a famously great laxative effect for babies is that along with grapes, they have more fructose than other fruits.

Here we start wondering about the entire idea of the daily bowel movement and regularity. For all we know, this daily bowel movement might wear out our digestive system, including the liver and pancreas 1/3 faster than when we are "irregular". Maybe we should rethink fibre, fruit and fructose.

### **It isn't type-1 & type-2 diabetes**

It is actually early onset and late onset diabetes. Intuitive terminology please.

### **Neuro-receptors and disease**

Rename sympathetic and parasympathetic nervous system's as auto-on and auto-off nervous systems. Perhaps some diabetes is caused by the auto-on or the sympathetic nervous system being attacked by some pathogen, or being worn down by some pathogen. After all, we do see ACE-2 receptors attacked by pathogens. Perhaps pathogens are also attacking the nervous signal

cells for the beta cells, the insulin producing cells in the pancreas.

### **Neuropathy and diabetes**

Neuropathy is often considered the first sign of diabetes, but maybe the nerve damage is not from the diabetes. Maybe the diabetes is from the nerve damage. Are we sure that some diabetes is not from neuron-degeneration of the system that tells the insulin cells to come on and go off? The key question is: How are the insulin producing cells damaged? Is it a switching signal, or damage to the body's cellular ability to produce insulin, or something else?

### **Which pathogens attack:**

- 1/ The urge to urinate nerves.
  - 2/ The insulin on nerves.
  - 3/ The esophageal sphincter valve nerves.
  - 4/ The prostate nerves.
  - 5/ The eye lubricant nerves.
- x/ And all so the parasite's host doesn't smell like an infection. Most early degenerative disease is from infection.

### **The easiest thing for liver and gut health**

Don't consume so much fructose or alcohol that you get farts, bloating, acid reflux, or loose stool. These symptoms mean that you are overloading and damaging your liver by making it work at maximum output. You are also overloading your digestive system, the normal gut bacteria overgrowing and causing inflammation, fluid, and pre-mature aging.

### **How to recognize "sugar bloating"**

Do you wake up trim and then become bloated later in the day, all day? Does this bloating not appear if you eat only meat, eggs and oil? This means you are consuming too much sugar and you are already on the path to diabetes.

### **The most important meal of the day**

People often say that breakfast is the most important meal of the day. Maybe it is most important that you not eat in the morning and BREAK YOUR FAST with a BREAK-FAST meal. Breakfast apparently IS the most important meal of the day. But it is important that you not have it if you need to slow the onset of diabetes.

### **Break-fast and diabetes**

One thing that is important for preventing diabetes is that you don't break your daily fast, and that you only put sugars in your gut for part of each day — say lunch to dinner. Apparently the thing that is important about breakfast is that you not eat it, or that you have no sugars at breakfast, only meats, oils and fats. Even a big portion of carbs will result in sugar.

### **How much of the day do you fast?**

Do you break your fast in the morning, with a sweet break-fast meal of sweet yogurt and cereal that is 1/3 sugar by weight... or do you do the right thing and wait until mid-day to begin eating sugars?

### **Insulin level after meals**

We should do long term studies to see if the 2 hour rule for pre-diabetics is accurate. Perhaps it is better that people have two bigger meals a day and follow a 3-hour rule. Perhaps it is better that the insulin stays off for two periods of 3 hours instead of 3 periods of two hours each day.

### **Morning fasting**

For pre-diabetics, lengthening the daily fast should give insulin producing cells much needed time to recover.

### **The old dietary ways**

Traditionally people had an evening meal and did not snack after this. In America this was around the time the father came home in the evening. Then they had a breakfast of meat, fat, carbs (hash browns, pancakes, oatmeal) and little sugar. So traditionally (when we had much less of a problem with diabetes and obesity) people really didn't have much sugar or carbs between say 7:00pm and noon the next day. In other words, they spent 17 hours of the day sugar fasting, while today we spend maybe 8 to 12 hours a day sugar fasting.

### **Islamic fasting is all wrong**

You should be sugar fasting every day from 10am to 6pm, or better yet, from noon to 5pm.

### **Insulin makes you hungry**

#### **Insulin is a hunger hormone**

If you eat meat, eggs, oil for breakfast, your insulin will stay off. If you go for a walk and then have some rice with breakfast, your insulin will stay off.

### **Chimp sugar metabolism**

Perhaps we may find a gene therapy in Chimps that will turn on our chimp abilities to metabolize fructose better. We seem to have also evolved to be weaker as well. Maybe their differences will show us where to develop a gene therapy to turn off the genetic safety mechanism for our strength, and make our kids much stronger than we are today. We might also study how much stronger chimps get when they are trained to lift weights and engage in cardio exercise. This is an interesting benchmark for humans.

### **Harmfully rich diets**

When the ancients spoke of rich diets, they weren't talking so much about creamy or fatty things. Those things were never so scarce as sweetness was. References to rich things were about honeyed nuts, dried

fruit, fresh fruit, fruit juices, beer and wine. That was a rich diet prior to modern times. So the harmful richness of the ancients was about fructose and alcohol mostly.

### **After dinner eating**

In past decades, desserts and after dinner snacks were generally the stuff of special occasions, treats, and were not a daily thing. That is how people ate before we all started getting fat and getting diabetes.

### **Cloyed = overloaded**

If you are eating so much sugar that you feel cloyed, then that is a binge. That is a sugar overload.

### **Weight gain/loss**

How big is the caloric intake zone where people neither gain nor lose weight? How much does excess caloric intake shorten one's life?

### **Diabetics: Get your weight off its peak**

If you are diabetic or pre-diabetic, the #1 thing you can do to slow the progression of your diabetes is to get your weight down at least a few kilos from its peak. We all know what this does to our ability to tolerate more food. It is much easier to deal with excess sugar when our weight is down, than when it is at its peak. Also, we should have some studies on whether losing a few kilos helps with insulin resistance. Maybe it isn't actually insulin resistance, maybe our bodies just can't metabolize that much food, with or without insulin.

### **Pre-diabetes and a lower calorie diet**

Is pre-diabetes slowed by having a caloric intake at the lowest weight-stable intake? Life expectancy is certainly longer if we do this.

### **Of fat and thin diabetics**

The fat diabetics are not bothered by eating too much. These succumb to the hunger-stimulating effects of insulin. The thin diabetics on the other hand are bothered by eating. So they tend to eat as little as possible and get thin as a result.

### **Less food = less sugar**

With diabetes, the body has a problem with excess nutrition, particularly sugar. So what are we going to do — give the body lots of nutrition? No. We are going to have scheduled meals with a precise sugar and caloric intake. We dial this down until we start losing weight. Then we back off to a stable intake. And we have pedometers and other ways to input exercise. And the app tells the cafeteria how big your meal portions are.

### **The best liver cleanse**

It is to not drink alcohol and to avoid all sweets. This will help keep two important parts of your body young. What about the unproven teas and herbal cleanses? Are those

more likely to be real or quack remedies? Also be sure to drink enough water.

### **The two forms of fructose**

There are a few types of fructose. Is there any difference between how these are metabolized? Is there any difference in how hard these are on the liver?

### **How does fructose metabolism fail?**

What point does fructose metabolism normally fail? Is it with fructokinase, triokinase, or with one of the other enzymes? Where does fructose metabolism slow with age?

### **People take the insulin state for normal**

All around the world, people are now consuming so much dietary sugar that they think this is the normal state.

### **It's the real thing - or so they say**

The stimulant-spiked sugar water company says of its main product that: "it's the real thing". I disagree. I think stimulant-spiked sugar water is the diametrical opposite of the real thing.

I also think that there is something terribly wrong with the world and our legal system if we have giant companies like this running catchy media songs every hour pushing their dangerous sugar water.

### **Mirror door refrigerators**

They reduced habitual eating and obesity.

### **Open kitchens**

This is another thing that is surely contributing to obesity. Maybe we should have closed kitchens in our homes, with time locks that prevent on-site mindless snacking.

### **Time lock refrigerators and pantries**

There is definitely something to be said for existing in the other end of the house as opposed to the kitchen. Maybe we should also have these locks on our kitchens that allow us to lock the kitchen until 6:45 am the next day, or whenever.

### **Kitchen Living makes you fat**

#### **307,000 hours**

It is not hard to imagine that some people have insulin cells that can work for say 307,000 hours in their lifetime. (12-hrs of insulin daily for 70 years = 307,000 hours.) So once their liver is damaged, they often start using their insulin cells 24 hours a day. So maybe their first 20 years are 12 hours a day insulin and the next 25 years are at 24 hours a day. Then their insulin cells wear out completely and they are diabetic at 45 years old.

### **Chemical machines with a fixed lifespan**

Google says tires last about 60-75,000 miles. But how many years is that? Well it all depends on how much you

drive your car and how many sharp turns you take. It is much the same with alcohol and sugar binges in humans. They are like sharp turns for your tires.

### **Lightweights**

It should be common knowledge that being an Alcohol "lightweight" can be an indication of a damaged liver.

### **Don't snack all day long**

If you eat all day, then your insulin level is raised all day... And your body may only be coded to have 300,000 hours of insulin in your lifetime. Or maybe it is 500,000 hours... or maybe only 80,000 hours.

### **Maltose**

The way maltose blocks sugar absorption would seem to contribute to wearing out one's insulin producing cells by keeping them on longer. Are heavy beer drinkers more prone to develop diabetes than people who drink other sorts of alcohol?

### **Why sugar causes weight gain**

1/ Insulin is the hormone that tells your cells to eat. Snacking all day causes your body to release insulin all day. Thus all day long, your cells have their eat switch on.  
2/ Insulin tells your muscles, fat, and liver cells to absorb glucose from the bloodstream. It basically tells your cells to eat or don't eat, in an on/off way. So let's say your liver is damaged and is no longer able to metabolize fructose well. Then the liver starts getting these backlogs of un-metabolized fructose... and glucose trickles out of the liver for many hours, and the body handles this by turning on insulin for many hours. In effect, these people have their cellular eat switch turned on for more of the day and that is why they gain weight.

### **Obesity & Diabetes both are from excess sugar**

**Obesity:** Because your insulin is on all day, your cells are being told to eat all day, so they eat and you get fat. And because they are being told to eat all day, you also get hungry all day.

**Diabetes:** Because your insulin producing cells are on all day, they age faster and then wear out and stop producing insulin. Then you become diabetic.

### **Insulin stimulates appetite for several hours**

Your blood sugar and insulin levels may be back to normal after 2 hours, but the insulin's hunger effects on your cells seems to last for some time longer. So it takes more than a couple hours for insulin's hunger effect to subside.

### **The idea of sugar ruining your appetite**

This seems to be doublespeak. Sugar actually does the opposite.

### **Why exercise helps with Diabetes**

Exercise creates pre-demand for sugar that will absorb some dietary sugar before one's insulin comes on. So if you are trying to keep your insulin off, exercise is key. This is the easiest insulin cheat. Eat and then walk/ exercise so that your muscles will use as much sugar as possible directly.

### **Moderate exercise for diabetics**

A bit of exercise helps lower your blood sugar, but don't overdo it. Too much exercise wears your body out.

### **Insulin cheating breakfast**

Stop eating at 6pm. Consume nothing but water after 6pm. For breakfast, have only eggs, meat, oils, fats, and sugar free greens. No sugars, fruits, or grains. If you want a cup of rice or buckwheat (low sugar grains) you must exercise first. Exercise before eating any sugar or carbs as this will create pre-demand for sugar that will help keep your insulin off. With this diet, it is possible to keep your insulin off from 8pm to noon, or around 16 hours a day.

### **Sugar is not a good thing**

We can see from the body's response to even small amounts of blood sugar, that sugar is a thing that the body tries to rapidly clear from the bloodstream because it is harmful. So are we wise to have the "sweet life"? Are we wise to dump huge volumes of sugar into our bodies? Sugar can be easily metabolized like alcohol, and like alcohol, one can obtain sustenance from it. But both are hard foods for the body to live on. Both wear the body out in their own ways — rather like Tobacco, asbestos, sunlight, and a host of other things.

### **Least hungry in the morning?**

If you find it is easiest to delay your first meal despite it being so long since you have eaten, this is because your insulin is off. Or rather, this is because your body's eat hormone is off. If you are trying to eat less, stretch out this morning period where your insulin is off. Do this by not eating any sugar in the morning. And if you do eat a tiny bit of sugar with your breakfast (say from rice or buckwheat or other low sugar grains, try to exercise first and create a sugar deficit so your insulin does not come on from the tiny amount of sugar you had for breakfast. Also, if you are going to have a time to exercise and you are pre-diabetic, you should exercise close to your ultra-low-sugar breakfast, so your insulin can stay off for more of the day. This is also not-coincidentally a very good way keep your hunger/ eat hormone off for more of the day.

### **Why intermittent fasting works**

It works because it takes hours for the insulin to wear off, and for your cells to stop trying to get more sugar. After this time period, you are no longer "insulin hungry".

### **High protein diets and weight loss**

Maybe it isn't the added protein, but the reduced sugar and insulin that curbs your appetite.

### **Sub-insulin diet**

This is where you exercise and eat no sugars, no alcohol, and limited carbohydrates. It is basically a no-sugar, low-carb diet, but as a way to slow the onset of diabetes, and even perhaps a way for some diabetics to live without injecting synthetic insulin.

### **Eating less may cure you**

Stop eating all you can, and start eating as little as you can. Does this help with your acid reflux? What about your bloating and diarrheal issues? What about your chronic infection, or allergies, or urinary tract issues? Overeating needs recognition as a source of many degenerative chronic problems.

### **Alcohol and sugar binges**

There are lots of drugs that people can easily tolerate as 90 doses a month — but if someone takes all 90 doses at once, they will overdose... right? Better you have a drinks a day with your means than all 21 on Saturday night. And surely the same goes for sugar binges.

### **Fructose-free food?**

One of the defining characteristics of modern processed food is how often the ingredients are turned into a fluid mix and injected or sprayed on a mold. Then the spray fluid is normally heated and cooked. But during the time it is in liquid form, perhaps we can neutralize or otherwise eliminate the fructose.

### **The thirst and frequent urination of diabetics**

Is this from liver inflammation, excess sugar related inflammation, lack of insulin, or something else? Surely it correlates to one particular thing. And we should all know the exact source for certain.

### **You can easily be over-hydrated**

This completely unproven mantra that people can't be hydrated enough causes electrolyte issues and seems to make people stupider. It also seems to cause urinary problems in some.

### **Old people dying of dehydration**

What people don't get is that old bodies frequently are not able to absorb belly water fast enough to make up for their perspiration. The trick is for government to require precise 10g bathroom scales, This is so old people can more easily stay properly hydrated. The second thing we should do for this is to require that all drugstores sell ORT satchels. The proper mix of glucose, salt and potassium helps everyone absorb belly water faster into the body.

### **Old people, sperm batches, and Insulin producing cells**

You get to a certain point in life as a man and you can't comfortably produce sperm more than once per day. Likewise perhaps with your insulin cells. These might only work well three times or two times a day, or once a day.

### **Is there a viral component to diabetes?**

Is diabetes another manifestation of shingles? This would make sense on the game trail as a way for a pathogen to kill and smell "normal". It might smell just like a prey animal that became diabetic though eating too much fructose. Does getting a shingrex vax, going on a sub-insulin diet and then taking Valtrex for 30-days help with sugar metabolism?

### **Micro liver transplantation**

Is it possible to transplant only the fructose metabolizing cells in a liver transplant so a more favorable outcome ratio can be achieved? Can other liver cells be changed to metabolize fructose? What do fetal stem cells do for fructose metabolizing cells? What do they do for the insulin-producing parts of the pancreas?

### **School poster**

"Alcohol & sugar binges"  
Feel 30 when you're 40,  
—or—  
Feel 50 when you're 40."

### **Metro Poster**

Don't eat all you can.  
Eat only what you need.  
You'll live longer, and  
feel and look better.

### **"You don't need that snack"**

### **"You don't need that drink"**

1/ This is exactly the opposite of what the all the metro ads say today. They say "Kit-Kit", or "Kalu-ahhh" candy alcohol. They say "aren't you hungry", and "it's Miller time".

2/ Maybe we should ban food and beverage advertising because it is unhealthy and contributes to obesity.

### **Food labeling**

All potential toxins should be listed in grams or milligrams per kilo: fructose, sucrose, sodium chloride, sodium nitrate, caffeine, other stimulants, alcohol, artificial sweeteners. And this includes both natural and artificial toxins.

### **Caffeine pills**

1/ A typical single espresso has about 30-40mg of caffeine, while an 8oz. drip coffee has about 80mg. So 1oz of espresso is equal to about 3oz. or 4oz. of drip coffee. The espresso is 4-times as concentrated, but a smaller dosage, which is sort of confusing.



2/ It today's modern world, it is surprisingly hard to get a precise dose of caffeine. The beverages tend to have variable caffeine content. And the pills are too highly dosed. After all, even if we break 200mg caffeine pills into quarters, it is still ~50mg.

3/ The caffeine pills should be sold in 10mg and 40mg tablets instead of only 200mg, with 40mg tablets intuitively equaling one espresso, or half a "normal" 4oz. drip coffee. This is because it really doesn't matter if people have to take five 1-cent pills to get 200mg.

4/ To help caffeine addicts dial their dosage down we will also have 10 mg pills. And both the 40 mg and the 10mg pills have grooves to make them easy to break into quarters. This is so caffeine pills can be used to dial-down one's caffeine intake.

5/ We should probably regulate caffeine content in our bottled beverages so this is more of a precise and stated amount in milligrams.

6/ All beverages and foods with caffeine or other stimulants should state their caffeine content in big letters on their front label. How many hundreds of millions of people have learned the hard way that Mountain Dew or some other beverage has quite a bit of caffeine in it? By what right do these companies hide their caffeine content and harm people with stimulant drugs in this way?

<b>Beverage</b>	<b>Caffein content</b>
Coke	34mg
Diet Coke	46mg
Pepsi	35-38
Pepsi Zero	69mg
Dr. Pepper	41mg
Mountain Dew	54mg
Folgers Classic Decaf	2-8mg
Lipton black tea bag	55mg
Lipton lemon iced tea	21mg
Hershey's milk chocolate bar	9mg
Swiss Miss hot cocoa	3mg

(source: cspinet.org)

### **Understanding Caffeine**

Essentially, caffeine blocks the chemical receptors for the system that calms the body. Caffeine binds to the adenosine receptors and fills them up. Thus adenosine (which is an inhibitory or relation neurotransmitter) can't bind and doesn't work. Thus the nervous system operates without its chemical "brakes" or slowing mechanism.

This explains how caffeine can be eliminated from the blood stream but the effects can last over a day. The caffeine apparently can stay bound to these receptors for much longer than it remains in the bloodstream. What is the mechanism the body uses to clear the caffeine from the receptors? Does caffeine age or damage the receptor cells?

### **Caffeine dosage is very front-loaded**

If you have not had any caffeine for a month, the first few milligrams can produce a noticeable effect that can last for more many hours and prevent you from sleeping well later that night.

### **We grow less sensitive to caffeine**

It should be studied in greater, but the first 5 to 10 milligrams of caffeine in new users seems to have quite an effect, while 95 milligrams in desensitized user might have no effect.

### **The small amount of caffeine in kids food**

What about the small amount of caffeine in sodas, chocolate, and tea? What does 3mg of caffeine do to small kids and unborn babies? It really should be more common knowledge that kids are much more sensitive to caffeine, and that even cola and chocolate levels of caffeine are getting small children buzzed on speed.

### **Stimulent-osis**

Some kids are just so sensitive to caffeine. They are so sensitive that 3mg from a tiny bit of chocolate, or 1/20th of your coffee, will block up their acetylcholine receptors, and they won't be able to calm down.

### **A 100% natural and much milder version of meth**

We all acknowledge that meth amphetamines makes people do crazy things. But what about the weaker stimulants like caffeine? Don't they get people doing crazy things? What about in young users? With regard to crazy behavior, coffee and meth are not much different in result. It is only the intensity that is greater with meth. How much of the violence we see in our society has to do with all the caffeine we consume? Certainly there is some correlation between caffeine use and violent crime? How much is the correlation?

### **Let's switch to precisely dosed caffeine everywhere**

#### **Cutting out the speed in kids**

This will help make them more peaceful. Also, we might want to control all the adrenalin media for kids, so that their learning is more interesting by comparison.

#### **Hot showers and heart palpitations**

Maybe people with heart palpitations and GERD should cut out the super hot showers and caffeine and trim their sugar for while, to see if vagus nerve stimulation is causing the heart irregularities. Hot showers can stimulate the vagus nerve, and cause acid reflux. and heart issues.

#### **A can of Coke has 34mg of caffeine**

1/ People who would never give their kids an espresso are frequently giving them colas that have just as much caffeine.

2/ We should list the caffeine content on all caffeine containing ingestibles.

3/ With colas, we combine high-fructose corn syrup that wears out our livers and causes diabetes with gut stretching and hunger-inducing carbonation.

### **Is caffeine harmless?**

What conditions correlate to higher caffeine use. And if it isn't harmless, why do we let people spike sweet kid's drinks with it? Why do we allow minors to have it and start early on their lifelong speed habit.

### **Getting your kids to bed**

If you are having trouble with this, you might want to eliminate all caffeine from their diet. Even the 3-milligrams from the hot cocoa in the morning may create problems that night, and perhaps even the next day. No chocolate, no tea, no colas.

### **Caffeine experiments**

1/ What dose of caffeine produce an observable increase in activity for 2 and 3 year olds? I bet it is less than 3mg — 10% of the caffeine in a can of coke (34mg) and on par with hot cocoa levels of caffeine.

2/ What dose of maternal caffeine consumption produces a measurable increase in fetal activity under ultrasound. start with 1mg on an empty stomach.

3/ Take an isolated sleep-away school with no outside food and give half the kids a cookie with 3mg of caffeine daily and the other half get an identical cookie with no caffeine. The overall diet has no caffeine. How much less do the caffeine kids sleep? Does the caffeine affect their academic performance?

### **Advice for young caffeine addicts**

Start with a few milligrams, a tenth or a fifth of an espresso and gradually increase your dosage. Try not to have more than one espresso until you are over 30 years old, and two espressos until you are over 40 years old. Save it.

### **Caffeine vs. Methamphetamine**

There is probably more on the overlap than on the ends. So a few milligrams of caffeine now and then might produce 10% or 20% of the meth effect. Do we want our kids leaning even 10% towards the meth effect.

### **Sugar taxation**

Maybe we should tax sugars so that sugar is no longer the cheapest part of the food. If we did that, then commercial food production will stop being about adding as much sugar as tolerable, and instead it will be about subtracting as much sugar as tolerable.

### **No trademark protection for tobacco**

Why do we give trademark protection to tobacco products if they kill 480,000 Americans a year? Why do we spend taxpayer money to reduce the counterfeiting of tobacco

products? Why not do nothing to help and slope the economy against tobacco.

### **Cancer-leaf**

People are changing all sorts of words and pronouns for little reason today. So let's do this: Let's officially change the name of tobacco and start calling it "Cancer Leaf". Let's make this the official name of tobacco from now on. So the stores that sell tobacco must call themselves "Cancer Leaf shops". And the Packages must say "Cancer Leaf" instead of tobacco.

### **Free diabetes testing**

The public would be financially wise to offer nearly free urine testing for changes in serum amylase (or lipase/ proenzyme) levels. Then we can tell people that they need to cut back on sugar or there is a 50/50 chance they will develop diabetes. Then we can save billions on the fraction of people who change their lifestyle in advance.

### **The insulin cartel**

1/ Insulin prices are up 10-fold in the past 25-years.  
2/ Synthetic insulin is almost 40-years old and for this reason, no longer deserves intellectual property protection.  
3/ The "big-3" insulin makers have grown fantastically rich exploiting their aged and now baseless cartel, and no longer deserve intellectual property protection.

### **Preventable healthcare cost in the US**

Cost of tobacco healthcare ~\$300 billion  
Cost of diabetic healthcare ~\$400 billion  
Given a US GDP of 21 trillion, the cost of these two preventable healthcare problems is 3-1/3% of US GDP.

On average Americans each pay \$909 on tobacco healthcare, and \$1,212 on diabetes healthcare.

### **SISOP = sugar induced symbiot overgrowth pathologies**

When our symbiots to get too much sugar, they tend to overgrow and cause problems. Now, because there are lots of people eating just about all the sugar their body can handle—all day long—there seems to be many people suffering from excess sugar simbiot pathologies like:

- 1/ Chronic acid reflux from sugar distorted esophageal flora.
- 2/ Chronic bloating and diarrhea from sugar distorted colon flora.
- 3/ Sinusitis from sugary and bacterially nutritious nasal mucus.
- 4/ Tinea and fungal infections from skin that has a bit too much nutritious sugar on it.
- 5/ Vaginitis, prostatitis, and perhaps bronchitis from sugary and nutritious body fluids. Also, excess sugar may lower vaginal PH, which reduces sperm lifespans and fertility with women who eat too much sugar.

### **Undigested gut sugar Syndrome**

The presence of excess sugars in the gut causes bacterial overgrowth, inflammation and gas. In the top of the gut, a bubbling froth of these gas bubbles seems to be what drives acid reflex up. In the bottom half of the gut, the bacterial overgrowth causes gas, bloating intestinal irritation and diarrheal illness.

### **A sugar and fertility experiment**

Since the time of ancient Athens, people have commented on how a rich life reduces fertility. Is there a sugar component to this? Here is an easy, cheap experiment. Locate a few thousand healthy couples that are trying to conceive and both are between say age 20 and 33. Does a totally sugar-free keto-diet in both increase the fertility rate for their age cohort?

### **Fertility and salt**

Let's do the above experiment where the male takes salt. How much salt should a man take if he is trying to impregnate?

### **Fertility and copper**

Do copper pipes reduce fertility? It is very easy to study this among couples trying to conceive. Do the people drinking tap water from copper pipe buildings have a harder time conceiving than those who never drink tap water. What about tobacco and alcohol and marijuana and obesity. How much do various levels of these affect our fertility? And given the insignificant cost of such studies, why doesn't our public health website have detailed information about this sort of stuff?

### **Skene's gland and fertility**

This is the gland inside the G-spot. It is the equivalent of the male prostate gland which emits basic-PH prostate fluid to counteract the natural acidity of vaginas. Lots of prostate fluid makes the vagina more basic and improves sperm lifespans. What does the fluid in the Skene's gland do to vaginal PH and sperm lifespan? Does a stimulated and fluid filled Skene's gland increase sperm lifespan and fertility? How does Skene's fluid get to the adjacent vagina? How long does it take? Can we make a synthetic fluid, a drug to simulate "Skene's fluid"?

### **The prostate-blood barrier duplicate**

It is famously hard to get drugs into the self-sufficient prostate gland. However, there is a trick. The patient should be ejaculating daily at a precise amount of time after taking their prostate pills. This of course depends on how long each individual drug needs to make peak concentrations in the blood.

### **Drug delivery to the prostate**

Is this improved by a drip to the inferior vesical artery? It would appear that we can achieve significantly higher doses delivered to the prostate this way. Maybe it is a

good way to treat prostate cancer. Maybe we can end some chronic bacterial infections of the prostate this way.

### **Heat therapy of urinary problems**

Do some exercise, then when you come back use a hot water bottle on your bladder, then try to urinate. The heat may help with your urinary track health. Prostates can also be treated by sitting on a hot water bottle.

### **Don't force your urine out**

We all know the way a garden hose has little force against say dirt on concrete... until we put our thumb on the tip to create a spray. When we force our urine out as hard as we can, we are doing a similar thing with your urinary tract mucus. So in general, even when you are young, you should not push your urine out hard.

### **Urinary tract inflammation caused by an enlarged prostate.**

The enlarged prostate causes the urine to pass through the urethra a higher speed and pressure (see above), which washes the protective mucus off. Thus there is more irritation to the dry and elderly mucosa of the urethra. Try to urinate slowly. and don't consume too much fluid. This is very tricky. You must drink enough so you don't harm your primary organs, but you must not drink too much and harm your urinary tract.

### **Expectorants and UTIs**

Do any expectorants help with UTIs? What about sperm count? What about yeast infections of the vagina? Or do they cause these? Do they cause one's mucosa to wear out faster? Easy tests, important answers.

### **Dripping urine is analogous to acid reflux**

And both are analogous to heart valve infections. All are caused by a defective sphincter valve. All three sphincters can be damaged by infections. Likewise with many of the sphincters and valves in the body. Many times, pathogens target only one valve to minimize the animal's sick smell.

### **Notching the prostate**

Is it possible to cut/ cauterize a small sliver-angled v-shaped notch in the anterior prostate, where the two lateral lobes meet? This might go 1/3 or maybe 2/3s of the way in towards the central urethra. Then the prostate is sutured closed. Wouldn't this reduce the pressure on the urethra? It can be tested on people, before they undergo a full prostatectomy.

### **Degenerative disease**

Every time you irritate your urinary tract, you are wearing it out. It is just like the way GERD burns and scars the esophageal sphincter valve, the valve that keeps the gut acid down where it belongs. It is wise to minimize each type of irritation and inflammation.

### **Excessive urination and the urinary tract**

Excessive urination causes irritation, due to both a longer washing effect, and less salt in the urine, increasing osmotic irritation and inflammation. So you actually do want to have some color in your urine.

### **Measured fluid intake**

This is the #1 thing you can do to reduce urinary tract irritation. Measure your urine flow at the urgency point.

### **Light yellow urine is best**

Excessive urination wears out the urinary tract mucosa.

### **The single mucus response.**

There seems to be a single mucus response for the entire body. This works on the nose, mouth, gut, eyes, and the urinary tract. This is why antihistamines cause urinary tract issues, because they increase dryness in mucosa that is already too dry. Does using expectorants and antihistamine produce any long-term changes in the mucus response of some people? Do any drugs do this? Drugs with a high percentage of users swearing that they have problems should generally be studied carefully by the Senate.

### **Parabolic dosage for antibiotics**

4/D, 3/D, 3/D, 2/D, 2/D, 2/D, 2/D, 1/D, 1/D, 1/D.

### **The bionic bladder**

#### **a/ Prostate stents**

#### **b/ Tissue to plastic interface. Perhaps we do plastic to artificial bone and the body grows to the bone.**

### **Iatrogenic disease from prostate treatment**

Let's do a study where we compare two groups of people who have prostate problems. One group is on repeated antibiotics for their prostate, the other is not. Which has a higher level of kidney stones? Also, what about calcium supplementation? Supposedly men are twice as likely to develop kidney stones. Is this related to the arterial plaque also made largely from calcium that afflicts so many men?

### **Are prostate problems often from digestive problems?**

We should figure out to what extent prostate problems are from digestive problems. Is it an infection of the gut? Is it nitrates in meat? Is it too much animal protein? Is it excessive dietary sugar causing sugary nutritious urine for bacteria to eat?

### **Does some prostate disease come from the colon?**

Is some prostate disease actually from intestinal bacteria? Does prostate disease correlate to certain intestinal bacteria profiles?

### **All our holes have mucus**

The urinary tract is coated in mucus just like the nasal

tract, the eyes, the oral tract, and the pulmonary tract. Each wet opening in our bodies has a coating of mucus that protects the cells. People who urinate too much tend to wash this coating of mucus off.

### **Don't have sex right after urinating**

When your mucus gets washed off by urine, the walls of their urethra can get stuck together much more easily. This especially during intercourse. So people might want to wait 15 minutes after urinating.

### **Older people dry out**

Older people get problems with dry eyes, dry mouths and dry urethras. In the urethra, the dry mucosa of old age can get washed off by the flow of urine much more easily than the wet mucosa of youth. So watch how much you drink. Don't urinate clear urine to "wash yourself out". You want to have light yellow urine and especially NOT DARK YELLOW URINE! this is a sign of not drinking enough. You want to walk a narrow path in the middle.

Does GERD come from a breakdown of the mucus at the lower esophageal sphincter valve. Is this also a source of hemorrhoids? Then the actual tissue gets damaged, and over time it wears out, and the organs and vessels beneath the skin start pushing out because the skin is thinned and aged.

Is GERD aggravated by eating dry and sticky foods, foods that stick in your mouth. Maybe these are not really good for your acid valve. In fact, there are plants trying to gum their seeds into the digestive track of their symbiots. We see this in all sticky fruits like jackfruit figs and some nuts.

### **The stickiness of fig skins and jackfruit**

What does eating these fruits do to our acid valves?

### **Antihistamine and urinary mucosa**

Antihistamine dries the body's entire mucus response. That is why antihistamines irritate the urinary tract. Does repeated antihistamine use have a life-long effect? Do people who have taken antihistamines regularly during life tended to have more urinary problems later in life?

### **Sperm volume**

Raising the salinity of the vagina through salty semen and osmosis is probably a huge part of sperm volume. We should probably experiment with adding varying amounts of saline gelatin after intercourse and before IUI.

### **Cloned skeins gland fluid**

We should carefully analyze both effective semen and **skeins** gland fluid for hormones and other chemicals. Here, evolution gives us the ideal starting point for hormones/chemicals/drugs to make females better able to conceive children.

## Things to teach in school sex education

- 1/ If you have sex with someone new, wait at least two weeks before touching your eyes. There is no reason to get an infection there too.
- 2/ Wait 15 minutes after urinating before having intercourse.
- 3/ Try to urinate shortly after having sex.
- 4/ Always wash your hands before having sex. Try to wash your body. Many vaginal infections come from dirty hands.
- 5/ If you are given oral sex to men, watch out for jaw problems and especially joint popping and tension. Don't do it for very long, the first time you open your jaws like this. Be aware that some people get lifelong jaw problems from this.
- 6/ It isn't good to get other people's fecal material in your mouth or on your anus. This can transmit late-life diseases. Pay attention to this when you use public toilets.
- 7/ It probably isn't good for male long term health to ejaculate more than 3 times a day. This should be perhaps twice a day from age 30 onward, and perhaps once a day from around 45 onward. Anything above this is overdrive that damages the long term health of your reproductive system. And later generations will probably update these ages.
- 8/ Birth control pills should be avoided as they damage your ability to conceive, however this is much less than the harm caused by abortions.
- 9/ Whatever method of birth control is used, couples who don't want to get pregnant should also:
  - a/ Time their sex with their cycle.
  - b/ Withdraw.
  - c/ Use a gentle natural spermicide.
- 10/ Wash the condom edge with soap before taking it off.

## Vaginal bacteria

I bet we will be able to transplant both gut and vaginal bacteria one day.

## Tampons

- a/ Tampons shall be made from cotton and hydrophilic gell.
- b/ There should be a new class of sex tampons (using either cotton, or hydrophilic gel bubbles of various absorption rates. These for the women with sugar inflammation.

## Sugar & infections

1/ Feeding the pathogens we are trying to eliminate isn't really important when the treatment works immediately. It becomes more of an issue when the treatments take a long time to work. Here with these long-term treatments that only barely work, the relationship between the pathogen's reproduction rate and host's elimination rate is a critical factor. So even if not eating sugar only slows the

pathogen's growth rate by 3%, this is still important for long-term infection treatments.

2/ It should be common knowledge that "Sugar Fasting" is good to do when you notice an infection. This can help the body eliminate many infections. Not eating any sugar for a few days should be in everyone's home remedy toolbox.

3/ Our bodies are full of genuinely helpful symbiots, quasi-symbiots and pathogens hiding in stealth mode. Sugar fasting often helps our bodies to regain control of many sorts of "symbiot uprising".

## Sugar, symbiots, and aging

When the natural symbiots in our bodies overgrow, they start acting more like pathogens, and less like symbiots. In other words, they tend to harm our cells more. Thus they cause more inflammation and cellular aging.

So consuming too much sugar causes symbiot overgrowth, which leads to inflammation and faster aging of cells. And regeneration is limited for every living creature. Bio-mechanisms can only heal so many times before the recovered tissue starts to become aged and distorted... like a photocopy of a photocopy of a photocopy. This is why sugar is harmful.

## Shrinkage in old age

Many cell lines die out as the organism ages. The organism shrinks as a result.

## Fiber and lower cholesterol

The idea of a diet rich in fiber and low in cholesterol came in to fashion in the early 1970s. This occurred along with a natural food diet, vitamins, marijuana, Mafia drugs, rock & roll and "free love", dropping out and not working... and epidemics of both obesity and depression. I am of the opinion that the low cholesterol diet caused the depression and the high fiber diet ages the gut and leads to the enlarged guts of old age, along with the overeating that accompanies this.

## A diet "rich in" fiber

The word grueling comes from prison inmates being fed gruel, or over fibrous grains to eat. This gave the inmates chronic diarrhea. Therefore, I think that getting too much fiber is grueling for the gut — and this leads to a variety of diseases such as the aptly named Crone's (Kronos=time) disease, or time disease of the gut. Too much fiber also seems to lead to celiac disease.

## Constipation and fecal stasis

I think we might have this one backwards. With every other organ, a state of irritation and inflammation leads to the organ aging faster. Therefore, we should expect that too much loose stool causes gut cancers, not much constipation.

### **Celiac disease**

As the small intestine ages or perhaps ages faster due to inflammation, its crenulations shrink and so does its surface area, and its ability to absorb nutrients. Let's have a name that not only is easily recognizable here, but one that also conveys something about the condition to everyone who hears it. Let's rename this as aged gut syndrome, or AGS. Then people will focus on keeping their digestive system young by eating less fructose, and other harmful things.

### **Un-chewed seeds**

Do certain un-chewed seeds reduce bowel inflammation, or only its symptoms?

### **Lomotil**

Is it possible to use low doses of diphenoxylate over a couple weeks with a low sugar intake to treat bowel inflammation and cure some diarrheal illnesses?

What if we attach a big polymer molecule to the Lomotil so the dosage can be increased?

### **Poppy seeds**

Let's do a study where certain amounts of poppy seed are eaten all day by people with chronic diarrheal illness.

### **Excess fluid implies inflammation**

Excess fluid in an organ tends to indicate inflammation and cells being aged faster than normal. This seems to be so for one's nasal passages, lungs, gut, eyes, and even perhaps even one's salivary glands, and reproductive organs.

### **Three enzymes three sorts of food**

Amylase breaks down starches and carbohydrates into sugars.

Protease breaks down proteins into amino acids.

Lipase breaks down lipids, which are fats and oils, into glycerol and fatty acids.

### **Emphysema**

This is excessive aging of the lungs. Why don't we call it "Aged Lung Syndrome". What are the main source of aged lung syndrome aside from tobacco?

### **Aged liver syndrome**

This is so much more accurate that "fatty liver". What are we doing? Are we trying to hide medical wisdom from the people? Let's call it Aged Liver Syndrome and then we can list all the things that people do to get aged liver syndrome and how bad medical science thinks each dose is. How bad is it to have 2-drinks, 4-drinks, 6-drinks, 8-drinks, 10-drinks, 200mg of acetaminophen, 400mg, 600mg, 800mg, 50g of fructose in a sitting, 100g, etc. Let's get some estimated numbers so the people can know what is killing them.

### **Aged skin syndrome**

This comes from excess abuse of the skin from either UV light or soaps or chemicals.

### **The Mexican flavor**

What is the name of the micro-organism that gives Mexican corn its distinctive taste? Are we sure this organism is entirely benign? It sort of seems like this organism causes intestinal wear in some people. distinctive flavor and after-effects were covered up with some of the world's spiciest food.

### **Blistering diseases**

Consider the many causes of people getting lots of blisters that rupture over time and produce a high viral load:

1/ The blisters rupturing over time is exactly what a Bath pathogen needs.

2/ Do the blisters contain a high level of pathogens? Which pathogens do this?

3/ We should all be aware of which diseases do this, so we can reduce further infections.

### **The modus operandi of Shingles**

Diseases that infect the head, shoulders and upper back seem to be a thing that helped pathogens spread in a bat cave. Which "non-contagious" skin diseases are most common here and on the feet?

### **The shingles rash on the back**

Is this the part of the bat's back that is most likely to get bumped into?

**Skin cancers are more common on the upper body, like shingles. Are both this from the bat huddle? Also, is one from the other? Is this why Skin problems are more common on the upper half of the body?**

Is shingles more common in warm places or cold places?

### **Psoriasis might be caused by a pathogen**

Covid only kills a tiny sliver of the people it infects. What if the disease lost all virulence except for the 1-in-2,000 it kills? What if Covid evolved to produce no noticeable effects except for giving 1-in-2,000 people a terrible rash? Would we then regard the pathogen as contagious then?

### **When fruit or alcohol has a laxative or gas effect**

This means that your body is overloaded and unable to metabolize all the fructose or alcohol in your gut. So this nutrition continues down to where it does not belong and the excess nutrition causes lower intestinal bacteria to overgrown, which causes inflammation and fluid and loosening of the stool. The laxative effect is a symptom that you are consuming too much sugar or alcohol and are overloading your body.

## **Chimp livers and fructose metabolism**

The differences should help us understand diabetes.

### **That which ages us**

- 1/ Poisons like those in tobacco, heavy metals, and alcohol.
- 2/ Radiation like that in sunlight which kills our cells and causes them to regenerate.
- 3/ Pathogens that remain living in our cells, feeding off our cells. Pathogens like the ones that eventually cause dementia, high blood pressure, aneurism, and many other late life diseases.
- 4/ Excess activity or fuel consumption. The machine that is your body ages like a car. Many parts like the tires will fail due to age after a few decades, even if you seldom drive the car. They will also fail if you don't use your car enough.
- 5/ Sugars that tends to make symbiots overgrow.
- 6/ Fructose that wears out our livers.

### **Athletes**

What health problems does each sport suffer from? We should make a matrix with the percent that go on to suffer each of many conditions. For example, among those who played high school football, what percentage over normal suffer back pain, or knee pain at age 60?

The Iron-men and ultra-athletes will be very interesting to study — particularly in the metabolic areas where they are worn-out after some decades. These guys will help us determine an upper range for what constitutes a healthy activity level.

### **Sleep position and joint issues**

Is there a correlation between:

- 1/ Knee problems and back sleeping?
- 2/ Are hip problems correlated to side sleeping?

### **Fatty liver + low hormones?**

The liver makes all the Cholesterol one needs ... but this is of course, only when it's healthy. Unhealthy "fatty" livers sometimes do not make enough cholesterol. Then the body can't produce enough hormones. This because Cholesterol is an essential ingredient in the production of dozens of hormones including Serotonin, Dopamine, Estrogens, Progesterones, "Testosterones", and Insulin.

Some depression is cholesterol linked. We need cholesterol to make serotonin and most other brain chemicals. To see if you have a problem with this, try eating 2 or 3-eggs in the morning. However, many people can't detect the changes in their mood themselves, so ask others. Cholesterol also helps you stay warm if you are always cold. It takes about 4-6 hours for the cholesterol to kick in, so don't expect immediate results. Also, people with very active minds (either habitually, or periodically) tend to use up their brain chemicals and get depressed or

strung out as a result. So if you are really stressed out, try eating some eggs.

Also, if a person has low hormones and low overall Cholesterol levels, and the problem is not urgent, perhaps it is wise to first try increasing dietary cholesterol to see if the low hormone levels are actually a Cholesterol nutrient issue. These people all might want try eating a 2 or 3 eggs a day to see if their hormone deficiency is from Cholesterol malnutrition. Maybe their problem will go away with with something as simple as having an egg or two with breakfast.

### **Damaged livers drive towards diabetes in two ways**

**On one hand**, our damaged livers harm our insulin producing cells by trickling-out glucose all day — that is to say, glucose metabolized from the fructose we eat.

**On the other hand**, our damaged livers don't produce enough cholesterol, and this starves our insulin producing cells of something they need to function.

### **Cholesterol is a nutrient like vitamin D**

**Fructose is a toxin, like alcohol.**

### **Do you crash easily from thinking too much?**

I speak from personal experience. It may be your hyper-active fuel-guzzling brain running out of some key brain chemicals like serotonin or dopamine. Here is why the low cholesterol propaganda is so insidious — because it undermines our very ability to think clearly.

### **Intelligence and depression**

The connection between intelligence and depression may simply be that powerful brains tend to use up all the brain chemicals and this causes depression. Solution: check your cholesterol level when you are crashing mentally. Also, try eating a couple eggs and then check your cholesterol again.

### **Is cholesterol harmful?**

#### **Its easy to do a study**

I don't know if eating lots of eggs harms people. But it is real easy to do a study. Find people who eat two eggs every day. Do they die of heart disease more than those that do not eat eggs?

### **Cholesterol and Parkinson's disease**

Cholesterol is used to make dopamine and Parkinson's disease is associated by a deficiency in dopamine.

**Study 1:** Do people people with early Parkinson's benefit from eating 1 egg three times a day? **Study 2:** Are people who religiously avoid eating high cholesterol foods more likely to get Parkinson's disease?

### **Cholestrol and diabetes**

Does eating two eggs a day increase insulin output?

### **Eggs for breakfast, then 1 or 2 meals**

One egg has 190 mg of cholesterol . What happens when pre-diabetics eat 2-eggs a day, in the morning, maybe 3-to-5-hours before the insulin is needed for their big lunch meal? Does having a big supply of cholesterol improve insulin levels? Does this slow the onset of diabetes? Does it help if the insulin cells are well nourished with cholesterol when they must come on? How much lead time is optimal? It would be such an easy thing to do a study on.

### **Eggs for your first meal**

Perhaps in some people, morning cholesterol is needed to help the body to make hormones that help metabolize the other food and also to get through the day.

### **Diseases associated with low cholesterol**

Which health conditions are associated with low cholesterol? What percent of these conditions are helped by increasing dietary cholesterol?

### **All day sugar / all-day cholesterol?**

If all-day sugar causes to produce insulin all-day — does all-day insulin tend to be a cause of all-day high cholesterol?

### **Cholesterol and calcium**

These are the two main ingredients in arterial plaque. Are we absolutely sure that cholesterol alone is the main cause? Maybe both are needed. Or maybe both are layered up by a third thing, namely a bat-borne blood pathogen that evolved to build shields against the immune system for itself here and there. Also, this way, more of the blood vessels of the animal will carry the disease to the predators eating the animal's carcass. Also, perhaps arterial sclerosis is not so much a thing of a meat-rich diet, but more a thing of a rare and undercooked meat diet.

### **Bone mass loss and arterial sclerosis**

Why does calcium go from the bones to the arteries? Is there a correlation between tooth decay, bone decay and arterial sclerosis? Does oral acidity acts on the skeletal system in the only place it is exposed?

Exercise increases bone mass. Does it also increase arterial sclerosis later in life? Does sugar intake increase arterial sclerosis because it decays the teeth? Should we load up with calcium early in life and have a lower amount later in life?

Also, the arterial plaque has two main components, cholesterol and calcium/magnesium. Perhaps we are focusing on the wrong half of the problem.

### **Calcium intake**

Given the problems people have from this, we should do more broad-based, long-term studies about what is optimal.

### **Calcium levels in the saliva**

Is this a predictor of arterial sclerosis?

### **Eggs are eaten early in the day in most parts of the world**

In most parts of the world, people seem to benefit from this. It was either chosen by preference, or it evolved through natural selection. Either way we should take a good look at the ideal dosage and timing of our supplemental cholesterol. It would seem that some liver damaged people could benefit from a small amount of dietary cholesterol in their diet. Medical science should know how much is ideal.

### **Cholesterol: another harmful nutrient**

It is quite easy to overdose on most vitamins and nutrients. Surely the human body can only metabolize so many milligrams of supplemental dietary cholesterol per hour. How much dietary cholesterol doesn't raise blood cholesterol in a bad way? How much dietary cholesterol can the body metabolize before the nutrient starts causing trouble, like say building up in the arteries? Medical science really should study supplemental cholesterol dosage in healthy and liver damaged people.

### **One egg has 190 mg of cholesterol**

#### **Chicken broth has 7mg of cholesterol**

In some places, lard and eggs are a folk remedy for keeping people a bit warmer when it is very cold. But cholesterol also seems to help people with fevers to maintain body temperature a bit better and deal a bit better with the stresses of infectious disease.

### **Breeding the fructose down**

Nearly all fruiting plants offer a mix of fructose and glucose. Some have more glucose and others have more fructose. We should be able to breed the harmful fructose out of our fruits and crops entirely. Basically the plant evolves towards more glucose when the plant must be entirely beneficial to it's symbiot animals. The plant evolves towards more fructose when the plant benefits from slowly poisoning the animals that eat too much its fruit.

The fructose makes the greediest fruit-eaters fat, slow, and torpid, like we see with so many humans. Then they get eaten and then their fat carcass often becomes valuable fertilizer for the plant. This is similar to how many fruiting plants evolved to support fruit that naturally ferments. This leads to drunken, and later severely hung-over prey animals... impaired to the point they often become prey and fertilizer.

### **Don't eat too much of one thing**

Evolution always greatly rewarded plants that got animals to eat only a little bit of their fruit and seeds. But evolution also tended to punish plants that let themselves be taken



advantage of by their symbiots. So many fruits are fine in small amounts, but if you live off of them it will be bad for your health over the long term.

### **Brazil nuts**

- 1/ The evolutionary forces that drive towards killing off feasters and supporting nibblers (in the interest of improved seed dispersal) tend to produce more than one mechanism for doing this. So Brazil nuts (among other tree seeds) have probably have other mild toxins in addition to having too much selenium.
- 2/ Is there variation in the selenium level of various Brazil nuts? Do some have very high selenium and some have low selenium?
- 3/ Some Brazil nut trees might be practicing a die here strategy by loading their nuts with toxic levels of selenium and perhaps other “drugs”.
- 4/ It would be interesting to see the range of selenium concentrations for Brazil nuts.

### **Vitamin A and light sensitivity**

Is light sensitivity sometimes the flip-side of some forms of night blindness? Is the same vitamin deficiency causing our pupil to become inflexible, or non-responsive in both directions? Is light sensitivity a better indication of vitamin A deficiency? Maybe we should say both things are indications of a vitamin A deficiency.

### **Dry eyes and sunlight**

Why do my dry eyes at night get all better when I am out in sunlight during the previous few days? Here we recall how most pathogens find even ambient sunlight deadly. Which eye conditions are improved by regular exposure to sunlight?

### **Tobacco, alcohol, fructose, & sunlight**

These are the four big toxins in our lives today, perhaps in order of how much harm they do to us.

### **All the ways you don't feel it when you are hurting your body**

We should make a list and repeat this list over and over in our schools. We should teach kids about repetitive brain injuries instead of having brain injury sports as national pass-times. And we should teach kids about binges, and stop all media glorification of binges and intoxicated celebration parties.

### **Fatty liver is a bad term**

- 1/ Fatty liver is an anesthetic term that hides what a bad thing it is to have a damaged liver. Better to say “liver damage” or “damaged liver”.
- 2/ The fact that so many people have a fatty liver in the modern world also is an anesthetic. This should not be considered normal, but a huge submerged problem.
- 3/ Kids should be taught the many health problems that follow from a worn liver.

### **Informing people of liver damage**

As a matter of public health in helping people to take care of themselves, a fatty liver diagnoses from the ultrasound techs should come with some numbers:

- 1/ The percentage of liver damage estimated.
- 2/ The life expectancy is estimated based on the percent of liver damage, assuming clean living in the future.
- 3/ The life expectancy is estimated based on the percent of liver damage, assuming more of the same lifestyle with regard to alcohol, fructose, and drug consumption.
- 4/ All this is automated and all the tech does is enter a two digit number estimating liver damage to areas in percent.

**ADULT LIFE EXPECTANCY** = how long the average person who makes it to 15 will live.

**BIRTH LIFE EXPECTANCY** = how long the average person born will live.

**INFANT MORTALITY** = the percentage of infants that die before reaching their third birthday.

**CHILD MORTALITY** = the percentage of children that die before reaching puberty.

### **Medical ratings**

There should be an objective scale 1-100 for communicating how urgent it is that treatment be undertaken. There should also be ratings for contagiousness, and prognosis for the very ill.

### **Pain meds and alcohol**

There should to be more public awareness of the liver damage caused by taking over the counter pain meds with alcohol.

### **The active high-sugar lifestyle**

Maybe in addition to our excessive sugar intake, our activity levels are also excessive. What if the way to a long life is to avoid sugar in addition to alcohol, and getting only moderate exercise. What if it wastes precious life energy to develop too much endurance. What if excessive exercise or work in youth shortens our lives? What about developing large muscles. Does that wear a person out too?

### **How much is ideal**

How much exercise is ideal for which age ranges? Let's use our phone pedometers and a computer and then starting in 20 years, we can see how long people live according to daily activity level and age. People should know this. The public should make this available. Also, if we are going to be tracking everyone's drug and alcohol and cigarette use, let's do a similar thing for these.

### **Your “acid valve” needs time to heal**

If you burn the “acid valve” between your esophagus and your stomach (you “lower esophageal sphincter valve” or LESV) it take 3 to 14 days to heal and grow fully leakproof again.

### **Stop the burn right away**

Whenever people get acid reflux, they need to stop the burn right away to stop the damage—which will only cause more scarring and more leaking and more burning. So:

- 1/ Take a fast acting antacid right away to neutralize the acid and stop the burning.
- 2/ Avoid whatever it is that you ate that is giving you acid reflux.
- 3/ Reduce your sugar, carb and alcohol intake.
- 4/ Stop drinking fizzy drinks including beer.
- 5/ Don't lie down on a full stomach, and try to stop eating a few hours before bed.
- 6/ Try to start sleeping on you left side if you can. Your gut is not symmetric and sleeping on your left side will keep your LESV more at the top of your gut. Later in the night you can roll onto your back or your right side.

### **Acid reflux froth**

It seems that the correct way to visualize the problem with acid reflux and bloating is as a froth of bubbles in the gut. The gut fills with bubbles causes pressure and then the bubbles at the top rupture, causing stomach acid to spray onto the LESV at the same time as the gas is leaking out. Some thoughts:

- 1/ Maybe instead of focusing on neutralizing the acid in the entire gut (which is actually needed for proper metabolism of calcium at a minimum) we should focus more on neutralizing the acid at the top of the gut. Maybe instead of taking one large antacid of 200mg, we should take 20 small doses of 10 mg that only neutralize the acid at the top of the gut.
- 2/ Maybe we should focus more on neutralizing the foam than on neutralizing the acid.
- 3/ Dissolving 10 milligrams of potassium salt in water and taking sips seems to help a tiny bit with acid reflux.

### **A great antacid**

Take calcium carbonate powder from a capsule and put it in 100ml of water in a 500ml bottle and shake it for five seconds then sip the calcium water.

### **Acid reflux is degenerative**

We need more public awareness about how acid reflux is degenerative. People should know that every time they burn their LESV, it grows back a bit more scarred, distorted and leaky. Then in many people their “acid valve” gets so scarred that it eventually stops working and acid leaks when they lie down. Currently, 15-million Americans suffer from daily acid reflux. That is about 4.5% of the population.

### **How much is acid reflux correlated to calcium deficiency?**

### **Colic baby? Try Left-breast—right-breast**

The human digestive system is not symmetrical. For this reason, mothers should feed left breast/right breast. This

way, at the end of feeding, the babies are lying on their left side and sloped in their mother arms. In this sloped position, the upper valve of the baby's stomach, the baby's acid valve is pointed more or less up, so this valve, the “lower esophageal valve” doesn't need to close as hard. This reduces stress on the gut, this stress often being the cause of colic.

Also, it is not hard to imagine that babies will eat more, and grow bigger if they are fed Left/Right, rather than the other way around. Just remember the army chant: “Left-right, left-right, left-right”. Finally, the reason for mom holding the baby in her arms is to keep the baby in this maximum belly full position asleep, on the baby's left side. So maybe 15 minutes is not enough. Maybe 30 minutes or 60 minutes will help underweight babies eat more and grow bigger. Also, we probably don't want to start a lifetime of acid reflux with baby feeding.

### **Is some acid reflux from a calcium and/or magnesium deficiency?**

Eating calcium sure stops acid reflux. Maybe some part of acid reflux is from a calcium deficiency. Maybe in some people it is the body saying “eat more bones”. Also does magnesium increase the effectiveness of calcium for stopping acid reflux?

### **Magnesium malnutrition in kids**

Magnesium is needed (along with Vitamin D) to metabolize calcium. Maybe in some children, their brain burns too much magnesium and there is not enough for proper calcium absorption. We should probably consider testing kids for both calcium and magnesium levels. It is an easy test. Also, is magnesium/potassium malnutrition involved with baby colic?

### **Lots of calcium when you are young**

People need to make sure they get enough calcium when they're young, because when they get older, they won't be able to absorb/use the calcium. Then it may cause trouble in the gut and blood vessels and other parts of your body.

### **Calcium, Vitamin D, and magnesium for kids**

- 1/ Calcium, Vitamin D, and magnesium supplements cost nothing and are easy to take. We will recover our money and efforts right away from fewer broken bones and other health issues in childhood.
- 2/ The Calcium is calming, and the magnesium will probably improve brain function and learning, So we should probably give These to kids when they arrive at school, along with some egg bread lightly sweetened with glucose.
- 3/ We should load people's bones up with calcium, starting in youth, so they have lots of calcium in old age. This will save the healthcare system much money in broken bone repair costs.

4/ Calcium, Vitamin D, and magnesium should probably be drummed into young people several times in youth so it gets through and is better remembered. We can tell all kids how it will make them a taller straighter and give them stronger bones and muscles. We can also tell the girls how it will make their babies will be stronger when they are older and have babies.

### **Salt taste study**

Do people lose the ability to taste salt and other flavors as they age? What pathologies are these perceptual losses correlated to?

### **Dietary salt**

We should:

- 1/ Limit maximum salt content in/on food.
- 2/ Prohibits salt in sweets.
- 3/ Requires a small amount of potassium and magnesium and perhaps other electrolytes in all salted foods.

### **Brain induced magnesium deficiency syndrome**

This is where the brain uses up all the magnesium needed to metabolize the calcium and the kids are underweight as a result. Is this a real thing? Can it be reversed by increased magnesium intake?

### **Mighty magnesium**

Maybe people with various neurological conditions can take MG all day sipped from MG water that must be shaken.

### **Magnesium deficiency is common**

Not only do we need vitamin D to metabolize calcium, we also need magnesium. The thing is that some active brains can use up lots of magnesium. So some active-minded kids grow up thin boned because they don't get enough magnesium. Also, metabolized calcium is calming, so you may notice a difference with ADHD symptoms when you increase dietary magnesium and calcium intake.

### **Magnesium and health**

How many MG of MG is optimum for brain activity, and problem solving? Note the confluence, and confusion it creates. Is something hidden here?

### **Calcium constipates and magnesium is a laxative**

These two minerals balance each other out.

### **Things to avoid too much of**

Most people know to avoid too much alcohol, fat, salt, sugar and sun. But what about acid food? How does too much vinegar and sour bread and lime juice age the body? How much is too much? How much is not enough? The Senate should figure this out objectively.

### **Calcium loss through the teeth**

Do people who've lost all their teeth suffer less calcium loss than people that still have teeth? Maybe some sort of coating of the teeth helps with osteoporosis and bone density issues.

### **Osteoporosis exercises from youth**

The three main areas of osteoporosis weakness are the hips, back and wrists. The bones in all these areas are easily strengthened by the various types of exercise coupled with proper intake of calcium, magnesium and vitamin D. This knowledge is far more important than teaching kids to play head-ball in school. This should be drummed into kids, not head-ball. We might also add exercises to strengthen the various problematic tendons of the body, and stop engaging in "sports" that harm our tendons and ligaments.

### **Spoofing pathogens into remission**

It isn't hard to imagine that some pathogens respond to low vitamin D levels (or serotonin levels, or dopamine levels). We really should figure out how pathogens know to re-activate when their hosts are **stressed** and deactivate when their hosts have recovered. Then perhaps we can spoof the pathogens into remission. Maybe this is what a single cortisone dose produces sometimes.

### **Vitamin D, torpid lifestyle and immune function**

It is widely known that Vitamin D helps with immune function. However, maybe some of the immune benefits don't have to do with the human body. Maybe some pathogens have evolved to use Vitamin D and other torpidity markers as a way to gauge the health of their hosts.

### **Zinc**

While zinc is an essential trace mineral to animals, it is toxic to a number of our bacterial symbiots. Does zinc help with sugar diseases?

### **Thai acid food problems**

We should study acid food intake among the Thais and see what diseases they suffer from more. Also what does both too acid and too much sugar cause?

### **Tin poisoning**

It is almost unknown, so rest assured with stainless steel

### **Copper toxicity**

It involves things like the storage of acid liquids with copper, such as acid jams in jars that have copper containing lids. Copper is evidently toxic to sperm, so our plumbing system may be obsolete.

### **Drug education videos**

- 1/ The CDC should make user videos for all prescription and non-prescription drugs and treatments.
- 2/ Everyone has to watch the appropriate video before they can buy the drug. So the education part of dispensing drugs is automated and much faster and easier. It can also be made as effective as necessary through repetition and testing
- 3/ Because all patients are well informed, more drugs can be made available over the counter.
- 4/ This is exactly what is needed for over the counter pain killers. There needs to be more public awareness of the liver damage caused by taking too many over the counter pain meds and particularly taking them with alcohol.
- 5/ When people want to buy certain medicinal herbs, they should be required to take the drug user's tutorial and pass the test. Just like with pharmacy drugs.

### **National prescription database**

There should be a national database where everyone's pharmaceutical records are kept and tracked. This is to flag "overlapping" prescriptions, and prescription drug abusers, as well as adverse reaction trends. At least we should be doing this for older patients and drugs prone to abuse or misuse.

### **National infectious disease database**

Every time someone tests positive for an infectious disease, it should be recorded and matched with their problems in late life. Then we will know which late life problems are associated with which pathogens.

### **Worldwide drug SKU numbers**

All drugs should have a worldwide SKU number 123-456-789 for each chemical compound and dosage. This in addition to the drug's name. Also under this scheme, over 99.99% of numbers will not be valid.

### **CDC opt-in email newsletters**

This is where a doctor signs you up for CDC updates for whatever conditions you have. Then you get the CDC newsletter which is free of ads and bias (hopefully). This has updates on all the new and in-progress drugs and treatment changes for whatever condition the person has. With this system, we can totally eliminate all costly drug advertising and save piles of healthcare money.

### **People should not own their lucky immunity**

If someone's body has the magic antibodies, or cells that the whole world needs, these should belong to everyone. The person should get a generous payment, but there should be no zillion dollar payments to them.

### **Pulse wave velocity**

Maybe PWV gets faster with age because the hose gets softer. Do pulses move faster through softer or harder latex hoses filled with water? Also, perhaps the inelastic

blood vessels wind up a bit stretched and this speeds up the flow.

### **Vasculitis is probably pathogenic.**

### **Drug delivery for neuropathy**

Perhaps the penetration of neuropathy drugs is best achieved by avoiding all nerve stimulation except when the drug is at maximum dosage shortly after taking it. Then the patient takes very hot showers, and uses a skin scrubber, and goes out in the bright sunlight, and drinks hot drinks, and perhaps other things like taking a neuro-stimulant perhaps. All of this is so the drug is maximally picked up by the nervous system right when the drug is at maximum levels in the blood. Perhaps also doing these things will also help drugs cross the brain/blood barrier.

### **Proper body hydration**

If your urine is dark it is not enough water. This is very bad for you. If your urine is clear, this is too much water and this can irritate your urinary tract and your bladder. The lack of salt leads to osmosis and inflames the urinary tract cells. It is rather like the way getting tap water in your eyes inflames them. So too much dietary water inflames the urinary tract. A steady moderate salt intake is probably another thing we can do to stay healthy.

**Consume micro particles of calcium/ magnesium/ potassium/ Sodium/ glucose all day long** as a shaken sipped beverage to improve absorption. Perhaps vitamin C and citric acid are added to some versions, perhaps some versions. Perhaps we have different mixture versions for different problems:

**if you get your GERD at the same time daily** when you eat at different times, then its probably a pathogen infection, which can probably be cured. Try taking a trip to a different continent and see if the GERD comes at the same time or a different time.

Which mucosal bacteria of the sinus and lungs also affect the urethra, digestive tract and eyes?

### **Gut bacteria replacement tech**

Maybe the lower, G.I. scope deposits something like bubble tea balls, as it's removed. These dissolve time-release style for the delivery of bacterial flora and medications. Or maybe there's a robotic sprayer that cleans the old bacteria off the surface and sprays a sticky gooey substance on the walls of the lower intestines that is full of healthy new gut bacteria. Also, this procedure should probably focus more on the valves than the other parts. Gut valve bacteria is probably different from normal gut bacteria.

### **Don't squander antibiotics on animals**

Pathogens do frequently become resistant to antibiotics. We are fools to squander the limited effectiveness of these wonder

drugs on livestock. Giving animals antibiotics should be stopped worldwide.

How much **kidney and liver disease** is caused by people being more comfortable and not peeing too much?

### **Low flow toilets tend to be unsanitary**

We've all seen someone else's post-flush brownish water. How often is there water that only looks clear? And of course, there is the dreaded and disgusting "splash-back". The most important part of the toilet design is its sanitary-ness. Does any part of the waste of one person contact another's anus? Having a little more water in our sewage system is utterly unimportant in comparison.

### **Dental hygienists**

Dentistry would work better if people went to see a dental hygienist for their checkups and cleaning, including x-rays. Then if the hygienist recommends a visit to a dentist:

1/ We can be more certain that this is an unbiased recommendation.

2/ We save lots of dentist time.

3/ We focus our dentists on actual procedures.

4/ We check people against each other in a way that drives towards honesty with regard to how often they recommend various procedures.

### **Dermatology Nurses**

These are rather like dental hygienists. They are allowed to do skin biopsies, To freeze small damaged areas of skin with liquid nitrogen, and perform minor sink surgeries like mole removals up to say 2-cm in diameter. They can also prescribe a number of prescription-only skin creams. Perhaps one needs a prescription to see a real dermatologist.

### **Socialized medical diagnosis**

Maybe instead of going for the whole shebang, government only offers partly socialized medicine. Maybe there is only socialized diagnostics at cost, with no referrals allowed. This is so there is no profit incentive here with this first and biggest step. This is in addition to the big bang procedures that are paid for by luxury taxes on small bang procedures.

### **The medical diagnostics puzzle**

Imagine a baby's wooden puzzle with basic shapes like squares, stars and plus signs at the top of the puzzle, and with more and more identical-looking shapes near the bottom end of the puzzle. These bottom shapes are all zigzag, like the shape of a comic book text bubble. So they are all quite look-alike. The shapes at the top end, anyone can tell apart, and these should be called basic diagnostics, because we don't need to use doctors for them. The shapes in the middle are called higher diagnostics, and these are where we will use our doctors. And the shapes that nobody can tell apart shall be called

etherial diagnostics, because nobody, not even doctors can tell the conditions apart, and everyone is just guessing. Also with regard to basic diagnostics, this has two levels: basic popular diagnostics and basic technician diagnostics. One is taught to everyone in secondary school, The other is a two-year specialized college degree. This is specialized for infectious disease,

So, for the first group, with the easy to recognize shapes, we don't really need experts for a diagnosis here. The second group needs the experts, and for the third group, the experts can't tell what they are looking at.

### **A democracy of doctors making healthcare decisions**

What if we had a sub-democracy of doctors? Each doctor in the nation has a vote, and they vote their opinion about various healthcare policy matters. We need this right?

### **Medical speculations should never be censored**

This especially when it is qualified practitioners and lay people making speculations disclosed as speculations. All opinions must be heard.

### **Acupuncture**

This appears to be a fake cure, but an very real way to give people real diseases and undisclosed drugs.

### **To reduce anxiety**

1/ Stop consuming caffeine, including chocolate and tea.

2/ Get enough calcium, magnesium, vitamin D, and potassium.

3/ Get enough exercise.

4/ Try eating a couple eggs daily.

5/ Stop re-thinking what it is causing the anxiety.

6/ Avoid stressful situations.

### **The head injury diet**

1/ No caffeine or stimulants.

2/ No salty food, as it aggravates the swelling. Take a little magnesium and potassium to reduce salt levels.

3/ Eat eggs so you have plenty of neurotransmitters.

### **Disease treatment priorities**

1/ Best is to prevent the pathogen infections in the first place (This will frequently cost around \$5 per patient.)

2/ Second best is to cure the pathogen infection. (This will frequently cost around \$50 per patient.)

3/ Third best is to treat the pathogen infection. (This will frequently cost around \$5,000 per patient.)

4/ Forth best is to treat the degenerative diseases. (This will frequently cost around \$50,000 per patient on average.)

### **Crisis medicine certificates**

We should have a number of disaster medical certificates such as disaster anesthesia and disaster suturing.

## **Heart Attacks**

Pathogens attack the cells that stimulate the out of breath response, and thus harm the heart in this way. So the heart isn't just getting enough blood, but also the blood isn't oxygenated enough.

## **Are arterial deposits more from cholesterol or from calcium**

Is arterial sclerosis a matter of cholesterol intake alone, or is there a calcium and magnesium intake aspect of it also.

## **How do animals deal with excess calcium?**

How do scavengers that eat bones all day not get arterial sclerosis?

## **Genuinely natural tears**

It would sure be great if we had a bio-identical, genetically-engineered, non-chemical, artificial tears would be a great idea. Maybe it's two parts, and people adjust the 6040-ness of the mixture. Or maybe it's just concentration of one ingredient in water.

## **Research into plant lipids**

- 1/ What are their dietary benefits?
- 2/ At what amounts do they harm us?
- 2/ Should we establish an RDA?
- 3/ How do we coax more from plants?

## **Does consumption of eggs during pregnancy reduce morning sickness?**

## **A Healthcare experiment**

Take a bunch of old people with a variety of problems, and move them every month to a different habitat, Phoenix, Mexican highlands, Costa Rica, Madrid, North Europe, Istanbul, North India, Malaysia, Hawaii. Do they outlive the people that move between places in the same city? Which conditions benefit from changing one's habitat?

## **IUI improvements**

- 1/ Surely we can have PH meters on the ends of our IUI endoscope, along with means to raise the PH of the uterus.
- 2/ We want to be able to deliver a fraction of the ejaculate from one man with the sterilized ejaculate of others so that our 50 and 60 year old men can have more kids.
- 3/ All women trying to conceive are supposed to have their Skene's gland filled with fluid and they are also supposed to have an orgasm immediately before.

## **Women and marijuana**

The reason females don't really like marijuana is probably that it is harmful for reproduction survival in one or more ways. What is the biochemical reason for this? Is this male/female preference shared by other animals? At what dosages do various animals stop consuming marijuana laced foods?

## **Gut health for kids**

We have all eaten so much of one thing that gave us diarrhea. We should tell all our kids in school many times that this tends to get worse as you get older, and after a while, it may also start happening from other foods, leaving the old person few dietary choices. We should repeatedly say that this sort of diarrheal action, and vomiting action appear to age your digestive system a great deal.

## **Inflammation disease**

These States of the body where one has diarrhea or vomiting, or the nose is running terribly, or one is coughing up material out of the lungs, or one has a peeling sun exposure, or a urinary tract infection. All these states are the result of inflammation killing cells. In all of these cases, this inflammation must not be allowed to become chronic, or it will terribly age your body. The main trick to living a long and healthy life is not to inflame your body too much by your lifestyle. Don't eat so much of anything you get diarrhea or farts, or bloating, Don't have sex so much you get sore. Don't get blistering sunburns. Don't lie down for an hour or two after you have had a big meal, or had fizzy drinks. Avoid excess sugar because it has a global effect on inflammation and increases the aging rate for the entire body.

## **Chemical peels**

These might make your skin look younger, but you are actually aging your skin.

## **Honestly, I think I'm censored**

Everyone should know about this information. But the media doesn't care. Our fake democracies doesn't care. Do you care? Can you please tell others about these words off line. This message doesn't move online.

## **Why aren't there cancer sniffer?**

Carnivore dogs evolved to sniff out sick animals and tell what sort of disease they have. Why aren't there thousands of dogs trained to sniff for cancer? Why not other dogs sniffing for heart disease? Why not other dogs sniffing for various other diseases? Surely they will save billions in early detection and treatment, and for what cost? Dog trainers who

## **The human body flow charts**

There are chemicals and hormones in the body that are produced by and act on each of the body's glands. Each one has chemicals, a neurotransmitter, or a hormone that is responsible for increasing output somewhere else, and another one that is responsible for decreasing output. (or perhaps these chemicals are just one-way they just stimulate on and then they go off, but there are chemicals responsible for all of our glands and all of our body functions. Do we know the identity of all of these chemicals? Do we have flow charts for how all the various

systems act, including actors that are there, but have no yet-defined purpose (shown in red)? Have we done a survey where we categorize catalog all of the body's chemical functions, and the chemical responsible for initiating or curtailing that function. Is there a global database of this for the body?

### **Flamology**

There should be a medical specialty that specialize in finding and eliminating inflammation, and infections.

### **Bioengineered synthetic human mother's milk**

Certainly, this is the promise of baby formula. But what if we cloned human breasts and implanted them into some other animal. Or what if we bioengineered or treated cows milk so it is more tolerable to babies.

### **Neo-formula for babies**

- 1/ We might super-pasteurize cows milk with both temperature and pressure.
- 2/ We might fraction and strip down the cow's milk so it is more sits better in delicate baby bellies.
- 3/ We might have super-clean concrete-floor dairies for baby formula.
- 4/ We test each nutritional supplement and the ones that cause problems get replaced. We also require that formula without supplements always be available.
- 5/ We shall require milk formula to have no soy. We shall require that vegetable formula have no milk.
- 6/ Prescriptions and video evidence are required for no-milk formula.

### **Breast cancer: Genetic, or infectious disease**

Is the breast cancer gene genetically inherited, or the result of a transmitted pathogen mother to daughter?

When kids get chickenpox

Parents should put a bitter irritant on their fingers so they don't put their fingers in their nose or in mouth, or eyes.

### **Asthma and nerve infections**

To what extent is asthma due to neurological inflammation of the cells that caused the out of breath response. Then later in life, these cells kill naturally with a sloppy out of breath response.

We should have a field of medicine called stress-ology, where we study the things things that stress all humans, and how much they stress human bodies and minds.

These might also work with individuals to find the idiosyncratic things that stress each person's body. I suspect that when we study this field seriously, we will find that there are many ingredients that we are going to delete from our diets entirely, and there will also be a number of ingredients that will only come with warning labels.

### **Nervous systems more anterior or posterior**

Are the various nervous system's in some way more related to the anterior or dorsal side of the body? Do sit ups, or back exercises or both help with any conditions of the sympathetic or parasympathetic nervous system? Does doing sit ups help with digestion and Gerd? What about diabetes? What about glandular infections?

### **Newborn care**

After birth, the baby is supposed to be placed on the mothers chest for 30 minutes before the umbilical cord is cut. This will substantially increase the babies blood supply. If saving the cord and umbilical blood necessitates, or the newborn must be cared for, this period may be shortened.

### **Welcome to this world**

There shall be no universal vaccinations or jabs for newborns. Even TB can wait.

### **Bacterial slime is normally a sort of camouflage**

It is from bacteria that want to hide out in the open, but live inaccessibly.

### **Tongue brushing and bacterial slime**

What does a light tongue every morning do to health?

### **Bacterial slime dissolvers**

What about chemicals that only dissolve the bacterial slime, and do not kill the bacteria? Surely there are tolerable chemical that only dissolves bacterial slime. Perhaps expectorant drugs like Guaifenesin can do this in places other than the airway. Also, arterial sclerosis should be understood in the context of bacterial slime.

### **Gut bacteria is a bacterial slime layer**

1/ Your gut bacteria works as a sort of bacterial slime. To replace or transplant it, the surface must be cleaned and a new slime culture deposited.

2/ We should test healthy young people and healthy old people and figure out which bacteria they have that unhealthy people don't have. Then we should take the healthiest gut bacteria and transplant it to many others if this is possible and it works.

### **When cancer comes back**

Is it the original cancer coming back, or is its a sibling cancer, sprouted afresh from the same cellular damage.

### **Denatured protein**

Cooking food for a long time, especially frying it, like with fried eggs... this denatures the proteins and makes it easier for people with food sensitivities to digest. If eggs, give you an upset stomach, then try frying them well done.

### **Regularized healthcare pricing**

This is where government sets standard prices for all procedures, then each facility offers its services as a percentage of this rate across the board. So some providers might be -7%, while others might be +39% — meaning that one is 7% less than standard pricing across the board on all procedures, and the other is 39% over standard pricing across the board. After this, there are no discounts, no negotiations, and fewer surprises. Everyone pays the same amount for the same procedure +/- the self-declared facility price adjustment percentage.

### **HIV drugs for all — at the same cost**

After a few decades, the amount of money that drug companies are making from HIV drugs is quite constant. What if the rich countries of the world got together and assigned a realistic sale value to these drugs and bought the patents for fair value under eminent domain? Then we cancel the patents and let any drug company make these otherwise expensive drugs as inexpensive generics with no intellectual property rights payments.

The result of this is that for the same cost, everyone with HIV gets drugs instead of only the people that can afford the expensive drugs. Also, because we are talking about an infectious disease, and the untreated are constantly causing new infections, the current approach is just plain stupid.

### **Healthcare inclusion vs. quality**

Today about 60% of American women get regular pap smears and 40% do not. A large number more would go if we also had inexpensive technicians doing pap smears. These might be trained as well as a dental hygienist. And because the training is easy, there are lots of these technicians. So walk-in and same day appointments are the norm, and it costs as much as a hair cut. Or better-yet, the healthcare system pays for Pap smears, sample pathology and cryotherapy by technicians, so that the greatest share of women get tested regularly and many cancers are prevented by the healthcare system resulting in both life extension, and healthcare system cost reductions.

### **Don't waste doctors on screening**

We should be Using technicians for routine screening so it costs little and everyone gets screened each year in late life.

### **Women's screening clinics.**

These have mammogram techs, pap-smear techs, and skin cancer techs. Screening techs change the entire cost/benefit equation of early screening.

### **Medical accuracy vs. inclusion**

Until everyone is getting some basic level of big-bang care, it is hard to justify specialists or even doctors doing treatment procedures. Whatever lives the added

expertise saves, getting everyone treated often helps many times more patients

Step 1: Everyone gets treated or screened.

Step 2: We squabble about the qualifications of the healthcare people doing the testing and treatment. In other words, the solution doesn't lie with more medical funding, it lies with lower standards of training for technicians that do very specific things.

### **No paperwork for doctors**

They meet people in transcription rooms, where the recorder records what is said unless the patient hits the mute button. When the doctor informs his patient about his diagnosis, using the standard oral format (more or less), the system records this, and it also offers the doctor the options of making a prescription, with the selection of one button from the interface. Then the patient's prescription system account automatically gets the prescription upon payment.

### **Regular self-testing checkups**

In addition to doing regular extensive blood testing given how easy this is, we should also be doing full body scans of various sorts, blood pressure, temperature and urine sample, blood oxygenation, weight and everything else a person can do by themselves, or with a walk-in equipment attendant. People go to a self-testing, or assisted-testing facility by themselves for the assembly line. Then they ID verify, If something is outside of the ranges, they get instructions and skip triage intake.

### **The healthcare self-testing industry**

This includes a technician assisted-testing. We should build this industry with new people. We can grow this new technician-based industry alongside our existing treatment apparatus — which will soon start each patient relationship with giving a second, or third, or fourth, or more opinion.

To save on healthcare spending, the Senate shall assemble lengthy web videos that explain all the common abnormal results and what they mean. We will also have lengthy FAQs that answer all the commonly asked questions. But we will save both money and lives with this approach. We will also help keep our healthcare system honest. All this new system does is spot problems and send people on their way into the healthcare system for second opinions. This system preserves health better, and at the same time it costs less.

### **The Elizabeth Holmes machine**

Go look at someone using a home insulin tester, and pay attention to the remarkably small amount of blood needed to fill a blood test strip. Then tell me that we will not be able to have 20 capillary-action tests from a single drop of blood, perhaps on a couple trees. That doesn't seem so hard to do. The world needs exactly the machine that Holmes was working on.



This technology looks like a great thing for improving public health. Imagine if people could run inexpensive panels for themselves. Then people would be able to detect their diseases earlier, and get treated earlier.

First, the multi-testers are going to go into the labs. Then, once they get miniaturized, they become home testers. And I bet it will be possible to test people for stroke, heart attack, dehydration, excess drinking, influenza, and many other diseases this way. Maybe each drop can be tested for 30 or 60 factors, just like the Elizabeth Holmes machine.

Elizabeth Holmes is in jail for statements she made to investors, but know 3 things:

1/ That this machine or another like it will provide a tremendous amount of self-service healthcare to the world. And for that reason, it is a good thing that she is doing, even if she was failing at it.  
2/ That the healthcare industry seems as if it might be full of scumbags willing to increase death and suffering to make more money. And the Holmes machine would cost these people a great deal of money.  
3/ She never lived like a person who loved money. She seem like someone trying to made the world better, who just got run over by a wicked pharmaceutical industry. What are we doing? Jailing somebody trying to help mankind at the behest of our totally corrupt healthcare industry, seeking to ensure its fat profit margins. What are we doing? Why is Elizabeth Holmes in jail? And don't people doing revolutionary things like this deserves the benefit of the doubt rather than having the book thrown at them? What are we doing? Jailing inventors like this is completely mad.

### **Free Elizabeth Holmes**

Jail her jailers

### **Telemedicine**

Telemedicine seems like it is becoming mostly a thing of patient empowerment, and patent DIY through things like cheap and easy blood screening. The convenience of self-testing will surely get many people testing themselves more often and sooner.

### **Second opinions**

One of the things we should drum into kids heads is that wherever a doctor says a person has a big problem, that person should always get a few second opinions.

### **Nattokinase**

The efficacy of Nattokinase should be studied by government as a thing which helps dissolve blood clots. Government shall scientifically test all un-patentable treatments like this against a control group so that the people can know the truth.