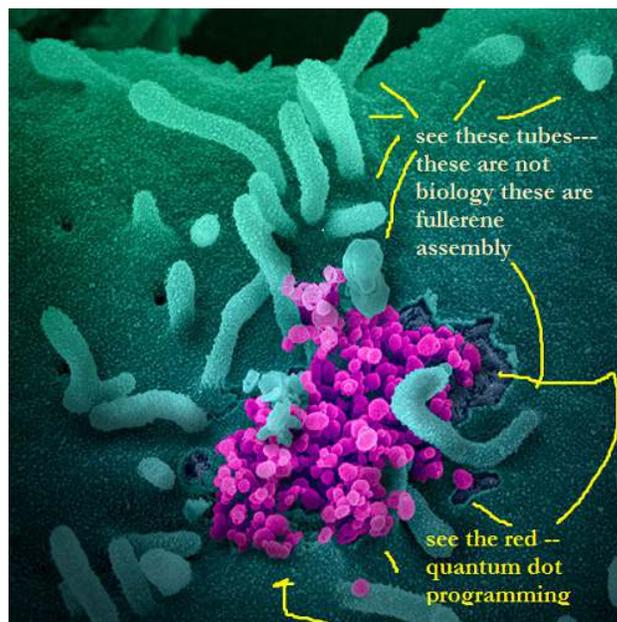


Nano Weaponary

The development of nanoweapons continues under a cloak of secrecy by every nation involved. This makes delineating an exact timeline challenging

Why do nanoweapons threaten the survival of humanity? **The simple answer is "control." Controlling nanoweapons is as problematic as controlling biological weapons.** Let us understand the control issue using an example. Assume one nation develops artificially intelligent nanobots, **tiny robots about the size of insects, capable of numerous military missions from surveillance to assassination.** The size of nanobots makes them easy to transport and difficult to detect. In addition, by midcentury, **current nanotechnology projections suggest artificially intelligent self-replicating nanobots will become a reality.** These nanobots are capable of replicating themselves **by literally seeking the right atoms and assembling a clone**

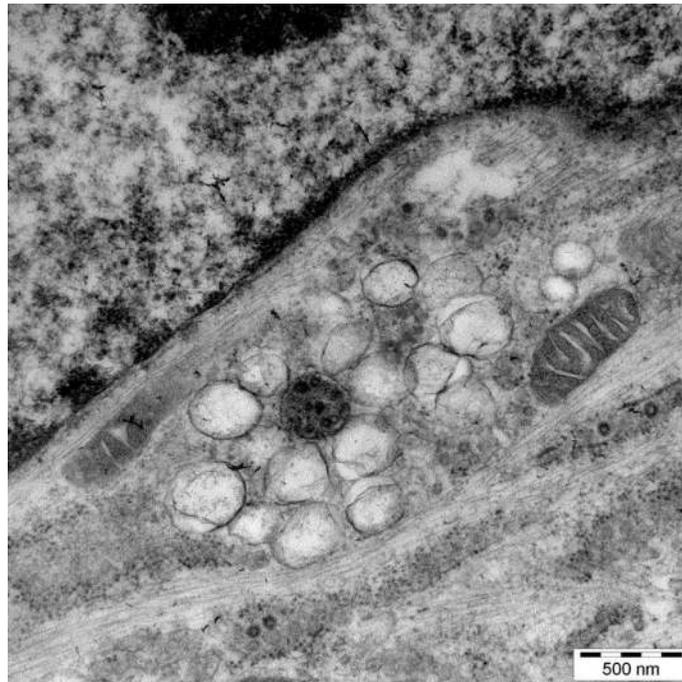
In effect, they are the **technological equivalent of biological weapons.---** **Weaponized self-replicating smart nanobots would represent the ultimate doomsday device.** Once released, their mission would be twofold: kill humans and replicate. Assuming the self-replicating smart nanobots are equivalent to a deadly biological pandemic



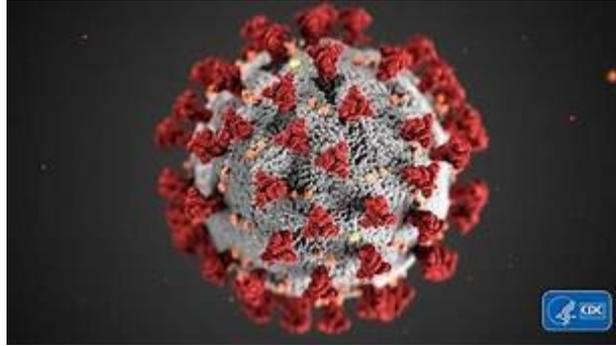


the evolution from pathological to nanobiological

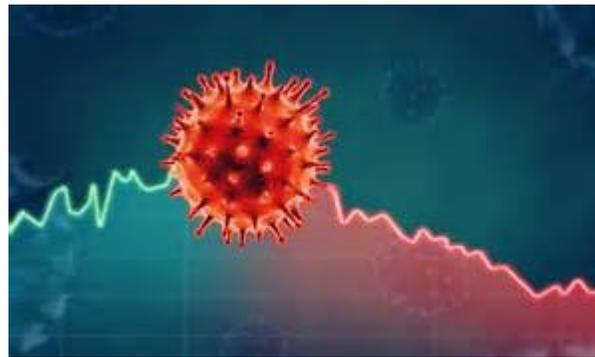
The evolution of corona virus to covid 19



Pathological ---Biology



nano integration appears to be a carbon c 60 with fullerene protrusions-next step in nanoweapony



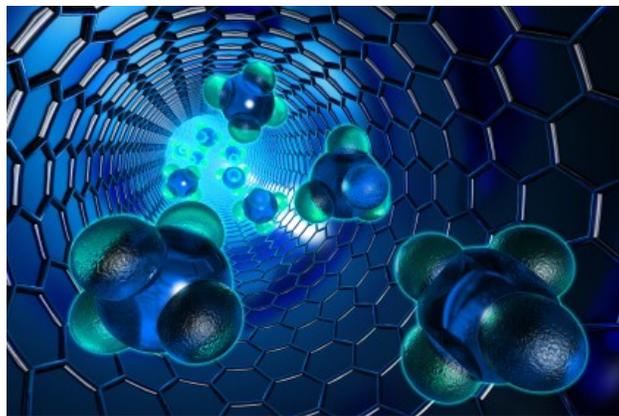
upscaled nano weaponry

“An enemy could kill you before you finish this sentence.”

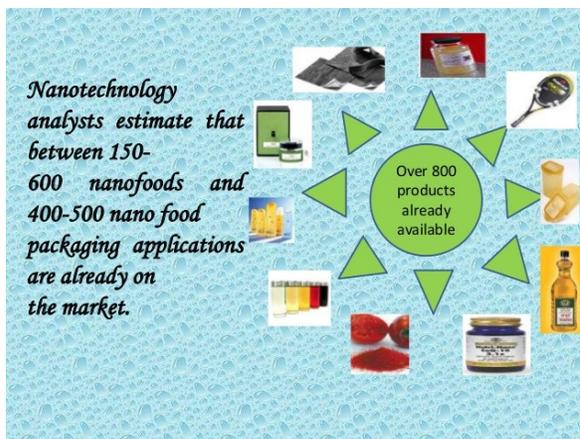
The smallest known flying insects are fairyflies, belonging to the family of chalcid wasps. Fairyflies are approximately 139 microns long (139 millionths of a meter). This suggests a plausible size for a lethal nanobot. If the toxin is botulism, the human lethal dose is 100 nanograms. If we assume the toxin payload each nanobot carries is 1,000 nanograms, similar to the weight ratio of a fighter aircraft to its ordinance payload, each nanobot could theoretically kill ten humans. **An autopsy will reveal the presence of botulism and may attribute the death to food poisoning, not foul play.**

NANO Bombs In 2007 the **Russian military successfully tested the world’s most powerful nonnuclear air- delivered bomb**, nicknamed the “father of all bombs.” Even though it only carries about seven tons of explosives compared with more than eight tons of explosives carried by the U.S. Massive Ordnance Air Blast bomb, nicknamed the “mother of all bombs,” **the Russian bomb is four times more powerful because it uses nanotechnology- enhanced explosives.** In a

counterpunch, the U.S. Department of Defense demonstrated the feasibility of creating compact bombs **that use nanometals, such as nanoaluminum, to create explosives more powerful than conventional bombs**----- Nanotechnology could make the laser and fusion materials extremely small, able to fit easily into a jacket pocket, and weigh only five pounds. **The blast from such a bomb would range from one ton to a hundred tons of conventional explosives.** The nuclear fallout would be negligible. Technically these are not weapons of mass destruction but an **entirely new category**--- but we do know that **the size of nanoparticles allows living tissue to absorb them more readily than other known toxins**-----Clearly a nation intent on developing nanoweapons could turn its attention to developing highly toxic nanoparticles. **Depending on the properties of the toxic nanoparticles, they may cause irreparable harm when inhaled or eaten**



This means an enemy **could potentially kill millions of people and animals by releasing toxic nanoparticles into a nation's reservoirs, its environment, or somewhere along a nation's bio food chain**



Agriculture	Food Processing	Food Packaging	Supplements
<ul style="list-style-type: none"> • Single-molecule detection to determine enzyme/substrate interactions • Nanocapsules for delivery of pesticides, fertilizers and other agriculturals more efficiently • Delivery of growth hormones in a controlled fashion • Nanosensors for monitoring soil conditions and crop growth • Nanochips for identity preservation and tracking • Nanosensors for detection of animal and plant pathogens • Nanocapsules to deliver vaccines • Nanoparticles to deliver DNA to plants (targeted genetic engineering) 	<ul style="list-style-type: none"> • Nanocapsules to improve bio-availability of nutraceuticals in standard ingredients such as cooking oils • Nanoencapsulated flavor enhancers • Nanotubes and nanoparticles as gelation and viscosifying agents • Nanocapsule infusion of plant-based steroids to replace a meat's cholesterol content • Nanoparticles to selectively bind and remove chemicals or pathogens from food • Nanoemulsions and nanoparticles for better availability and dispersion of nutrients 	<ul style="list-style-type: none"> • Antibodies attached to fluorescent nanoparticles to detect chemicals or foodborne pathogens • Biodegradable nanosensors for temperature, moisture and time monitoring • Nanoclays and nanofilms as barrier materials to prevent spoilage and prevent oxygen absorption • Electrochemical nanosensors to detect ethylene • Antimicrobial and antifungal surface coatings with nanoparticles (silver, magnesium, zinc) • Lighter, stronger and more heat-resistant films with silicate nanoparticles • Modified permeation behavior of foils 	<ul style="list-style-type: none"> • Nanoize powders to increase absorption of nutrients • Cellulose nanocrystal composites as drug carriers • Nanoencapsulation of nutraceuticals for better absorption, better stability or targeted delivery • Nanocochleates (coiled nanoparticles) to deliver nutrients more efficiently to cells without affecting color or taste of food • Vitamin sprays dispersing active molecules into nanodroplets for better absorption

Figure 1. Examples of Nanofood Applications (Source: Nanowerk)

To make matters worse, the current detection of nanoparticles requires expensive and complex analytical instruments. **Even when the first symptoms surface, it might take days, weeks, or even months to determine that the culprit is a toxic nanoparticle.**

By the time initial symptoms appear and the Centers for Disease Control and Prevention or the World Health Organization makes a definitive diagnosis, **the bulk of a nation's population could already have absorbed a lethal dose and be beyond treatment**

