

Newgene-US Bioengineering Alternatives to Conventional Covid-Care/Protective Products; Most Likely Users:

OPPORTUNITIES, PROSPECTS:

Disinfectants & Equipment:

Hospitals & Clinics, Schools, food producers, airlines; any establishment requiring disinfecting procedures; any public area that can benefit from aerosol fumigating or disinfecting channels for employees or guests or establishments that can benefit from an effective, but non-toxic, disinfecting products;

Tests & Testing:

Virtually any individual or establishment can benefit from the availability of a fast, cheap, self-administered test to detect current or prior covid-19 infection &/or current influenza infection.

PROBLEMS WITH CONVENTIONAL PRODUCTS:

Effective conventional disinfectants are also toxic or harmful to pets, plants, babies: may have an unpleasant odor, damage cloth or surfaces, or leave residues or clogs sprayers; can't be used around foodstuffs &/or require careful rinsing; can't contact skin or be inhaled or consumed; cannot be used to fumigate occupied areas & are expensive.

The current "gold-standard" PCR test is accurate for current covid infection, but is slow, expensive, requires technicians to obtain samples & run the tests procedure; requires labs & expensive equipment, requires a prescription or other permission to have the test done; can, but does not usually, detect simultaneous flu infections; does not detect a prior, recovered covid infection. Current fast antigen tests are expensive; may not be accurate enough; do not detect prior covid infection; utilize saliva or shallow nasal samples that may be "spotty" for actual virus; may still require a reader device; do not detect simultaneous flue infection; may still require a prescription or the sending of the sample to a lab.

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NEWGENE-US PRODUCT ADVANTAGES:

Patho-Gone or **Multi-Sani** are odorless products that are 100 times as effective as bleach, yet non-toxic; leaving no residue & not clogging sprayers/foggers. They can be used around pets, babies, plants, foods without danger or need for rinsing; can be used to sanitize skin (even wounds); and are based on the only disinfecting chemical approved for use in fumigating spaces while still occupied; and can even be used on fruits, vegetables or fish & in food preparations areas without the need for rinsing. They do not damage clothing or surfaces; are affordable & available in large bulk or small spray bottles. For sanitizing people & spaces there are our **disinfecting channels & ultrasonic nebulizers** that cost 1/3 to 1/2 of competing products & also dispense hand sanitizer as well as detect fevers & some automatically ID periodic users/employees. **Touchless misters** can sanitizes gloved hands, etc, in seconds; **Wall or stand-mounted sanitizer units** can dispense hand sanitizer & some touchlessly measure forehead temperature as well as ID periodic users.

The Newgene-US tests cost 1/2 to 1/4 of the cost of the current fast antigen tests; require no prescription, technician or supplemental equipment; provide accurate results in 15 minutes. In addition, the combination test kits can simultaneously disclose the presence of a simultaneous covid and flu infection, or the likelihood of a prior, recovered covid infection (or antibodies as a result of vaccination). When combined with the measurement of forehead temperature, it is likely that all but the very first 2-3 days of a generally non-symptomatic infections can be detected. Individual kit prices include outgoing priority postage.

OPPORTUNITIES, PROSPECTS

PPE-Masks, Shields

Obviously, masks & face shields are appropriate any time it is not possible to socially distance oneself from others who may be infected with airborne disease. We think of covid-19 now, but masks can help minimize the spread of any number of diseases when there are breakouts, ranging from colds to the flu, etc..

PPE-Gloves

Whether or not gloves are a worthwhile, effective PPE is debatable, since the covid virus does not penetrate the skin of the hands, and it is just as easy to transfer the virus with gloved as with bare hands. And, washing or sanitizing hands is as effective protection as wearing & changing gloves. But, for what ever reasons, gloves are in demand, and we have products that solve some of the onerous qualities of this huge demand.

PROBLEMS WITH CONVENTIONAL PRODUCTS:

Conventional knowledge says that N95 cup respirator masks are the best, especially for health care pros, 1st responders & other critical workers. It is common to think that the expensive N95 standard mask is best. But, there are many problems with this knowledge". In fact, much of it is a fallacy: For one thing, even 3M admits that there are world standards that are almost identical to the NIOSH N95 standards. In fact, there are 99% & 100% which block those %'s of std-size particles. For another thing, properly shaped folding masks conform more easily to all faces than do rigid cup masks and usually have better filters & more plies than the average cup respirator. Finally, the average non-cloth mask is made of non-degradable material and all methods used for sanitizing the masks degrade performance of the masks or utilize toxic materials. Yet, for all of these benefits, the cost is ½ to 1/3 of the cost of the average N95 cup respirator mask & w/ a contract, supplies are assured for the contract life.

For some reason, many professionals assume that the blue "nitrile" gloves are the best, but it is a fallacy, They are not 100% chemical resistant, nor are they totally nonallergenic, as some people are sensitive to the activators & other chemicals found in them. They are not biodegradable, meaning that, in one year, over 1.5 million tons of gloves will be discarded. The demand exceeds supply by 40% at present, and the cost has doubled in less than a year. To, say, use such a pair of gloves for 3 minutes, to give an injection, and them discard them is, to put it bluntly, insane waste.

NEWGENE-US PRODUCT ADVANTAGES:

The proposed Newgene-US mask facility will produce affordable masks with nanofiber & nanoparticle filters that strain out much smaller-size particles and are also self-sanitizing without the use of toxic materials. The fabric itself includes a percentage of organic polymer that makes the entrie mask compostable. Masks are supplied with free mask adjusters that take the pressure of the ear loops off ears and induce a tighter fit. The pricing is as much as half the price of comparable NIOSH masks, yet the intent is for them to exceed N95 standards. Custom printing of logs will be free, for contracted quantities, and the inks will also contain self-sanitizing abilities w/o toxic chemicals.

Newgene-US has access to vinyl-nitrile blend gloves that are 1/3 less cost than "pure" nitrile, but have almost identical properties and are FDA approved and also chemical resistant. However, we have an even better glove, which looks similar to the gloves one might use for sandwich-prep or other food uses...but they are made of PLA which is compostable corn fiber. Certainly, they are not as sturdy as the nitrile gloves. But, when used for a couple of minutes & then discarded, sturdiness is hardly an issue. And, when the cost is as little as ¼ of the cost of nitrile, it is hard to justify using what is essentially a surgical glove for non-surgical use. (Cost \$3 vs \$15/box Of 100 gloves)