

## Nano Congress 2021: A new way to fight sars-cov-19 - Valentyn. Nastasenko - Kherson State Maritime Academy, Ukraine

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Currently, there is no more important problem for humanity than the fight against SARS-CoV-19 (COVID-19). Information of researchers from the Massachusetts Institute of Technology that the virus envelope quickly degrades at frequencies of 25 and 50 MHz, both in water and air is appeared. However, little attention has been paid to this message.

The purpose of this work is to eliminate this drawback and draw attention to a new way of fighting viruses and bacteria by their resonant destruction. This path was founded back in the XX century Alexander Gurvich (Russia) and Royal Rife (USA) and implemented in a number of already invented electronic devices. Royal Rife used this path to treat cancer patients, but in a number of cases he received a negative result, which forced them to reject this path (not without the influence of pharmaceutical companies, due to the threat of losing the market for expensive drugs).

Given that COVID-19 is rapidly mutating, it requires the production of billions of doses of new types of vaccines, which is carried out "in pursuit" of mutations. This path requires constant new costs of intellectual, material, technical and economic resources, which are diverted from other areas of improving human life and activities. In addition, during the "in pursuit" period, there are no other more effective methods of combating COVID-19 than isolation, which has a detrimental effect on the economy countries and people's living conditions. Since these problems are more important than other immediate benefits, therefore, it is necessary to forget about past failures and direct all efforts to developing a new path - the resonant destruction of viruses, as a universal disinfectant for all types of viruses. This does not reject the development of new vaccines and traditional methods of treatment; they can be carried out in parallel. The developed individual electronic devices can be made in the form of medallions or additional microchips of smartphones and mobile phones, which are available to all inhabitants of the Earth. If the same resources that were used to develop vaccines are involved in solving this problem, success is possible within a year, and further costs will be minimal.

### Introduction

A solitary portion of the COVID-19 immunization made by either Pfizer or AstraZeneca cuts an individual's danger of communicating SARS-CoV-2 to their nearest contacts by as much as half, as per an examination of in excess of 365,000 families in the United Kingdom.

Albeit the antibodies have been displayed to lessen COVID-19 indications and genuine sickness, their capacity to forestall

Covid transmission has been indistinct. Kevin Dunbar, Gavin Dabrera and their partners at Public Health England in London searched for cases in which somebody got tainted with SARS-CoV-2 subsequent to getting a portion of one or the other immunization (R. J. Harris et al. Preprint at Knowledge Hub <https://go.nature.com/3e3iu1i>; 2021). They then, at that point surveyed how frequently those people communicated the infection to family contacts.

The group found that individuals who had been inoculated for at any rate 21 days could in any case test positive for the infection. In any case, viral transmission from these people to others in their families was 40–half lower than transmission in families in which the primary individual to test positive had not been immunized. Results for the two antibodies were comparable. The discoveries have not yet been peer evaluated.

Infections are not actually alive; they are bundles of RNA or DNA that can just reproduce by seizing its host's hereditary hardware. Antivirals don't obliterate these bundles, they are little atoms intended to impede viral replication, accordingly decreasing side effects and infectivity while the insusceptible framework manages them. Lamentably, in light of the fact that infections depend on the host's DNA replication apparatus discovering drugs that lone objective and tie explicit infection proteins and not those of the host cell is a test. This absence of particularity implies enormous portions of antivirals are frequently expected to accomplish the ideal impact, which thusly builds poisonousness.

The field of nanomedicine, notwithstanding, has been investigating how nanoparticles can conquer a portion of these issues. The guarantee of nanoparticle antivirals comes from their multivalency – the quantity of associations happening as particles tie together. The nanoparticle of decision for Szunerits are carbon quantum spots (CQDs) which are round, have a high surface-to-volume proportion and are more modest in size than infections making conditions where multivalent connections can assume a part. The outside of the CQDs can likewise be covered with particles that tight spot the proteins infections use to enter cells. The round shape and more modest size of the CQD mean these particles can frame incredibly close multivalent bonds with proteins everywhere on the infection's surface, impeding it from joining to and contaminating a host cell. Szunerits and group began this work in 2018, testing the capacity of CQDs with boronic corrosive gatherings to diminish the infectivity of a gentle strain of human Covids in cell lines.