Evaluation of the Influence of Faradarmani Consciousness Field on Viral Growth

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Abstract

The Consciousness Fields according to Taheri, are non-matter and non-energetic fields with the ability to have reproducible effects in the laboratory and experimental environments. Previous studies related to studying the effects of Faradarmani Consciousness Fields (FCF) on plant characteristics and animal disease models reveal that FCF functions in optimizing the system under study. Significant effects of Faradarmani Consciousness Fields on bacterial and cellular population growth led us to investigate the effectiveness of Faradarmani Consciousness Field on viral titer and type. For this, we stratified various viruses into envelope or non-envelope as well as DNA and RNA types. This study aims at assessing the influence of FCF on four types of virus combinations using TCID50 assay. We tested the effect of FCF on pre-determined titers of selected viruses and found that FCF changed the viral titers by 0.4 to 1.85 logs compared to the control group. As the results suggest, the physical structure of the viruses and their genome type have notable effects on their response to the FCF.

Introduction

The virus was discovered in the end of the 19^{th} century by Dmitri Ivanovsky. Specifically, tobacco mosaic virus was the first pathogen identified as virus and with it many fundamental virology concepts were developed related to viral purification (Zaitlin, 1998). Viruses are too small and cannot pass through filters that bacteria can (Van Regenmortel, 2008). In the late 1930s, with the invention of the electron microscope, the biological study of viruses, and in particular, bacteriophages became possible (Luria et al, 1943). Viral genomes consist of DNA or RNA only, and not both simultaneously. DNA or RNA contribute to diverse characteristics in viruses. They can be double-stranded or single-stranded, linear or circular, and range from 2 kb to 2500 kb in length (O'Carroll and Rein, 2016). The protein shell, known as the capsid, protects the nucleic acid (Pal, 2019). Viruses come in various shapes and sizes and are classified based on morphological features, for example, based on the kind of nucleic acid, capsid symmetry, presence or absence of envelope and additional characteristics of the capsid (Norrby, 1983).

Viruses exist wherever life is found, and they are the most abundant biological entities (Suttle, 2005, Louten, 2016). It has been reported that there are 10^{31} viruses on Earth. They can infect all types of life forms including animals, plants, bacteria, and archaea (Koonin et al, 2006). Viruses are not considered to be alive because they can only replicate inside host cells (López-García, 2012) and as such are described as 'organisms at the edge of life' (Reybicki, 1990). Recently, it has been reported that whether or not 'viruses are alive' depends on the definition of life. For instance, alcohol-based hand sanitizers kill viruses, so they are clearly not dead as one cannot kill something that is not alive (Koonin and Starokadomskyy, 2016). Similarly, Pearson (2008) suggest the term 'virophage' for viruses as living entities.

Within the last four decades, we have witnessed various viral pandemics like HIV, SARS-CoV, influenza A (A/H1N1), MERS-CoV, Ebola virus, SARS-CoV-2 and finally the Coronavirus Disease 2019 or COVID-19 as novel challenges (Roychoudhury et al, 2020). Scientists put a significant effort to understand how to prevent pandemics. According to the CDC, apart from getting vaccinated and taking medicine, nonpharmaceutical interventions (NPIs) are the strategies that people and communities can take to help slow the spread of respiratory viruses like influenza (e.g., staying home when ill, washing hands) especially when vaccines are not yet available.

Despite prevention efforts, pandemics appear to be increasing, particularly because of the increasing emergence of viral diseases that jump to humans from animals (Madhav et al, 2017). Faradarmani Consciousness Field (FCF) is a complementary therapy introduced by Mohammad Ali Taheri. According to Taheri, consciousness is one of the three elements of the universe apart from matter and energy. Faradarmani is just one of the many Consciousness Fields (CF) that has been investigated in the past thirty years. As it was mentioned above, consciousness is neither matter nor energy; therefore, we cannot associate a quantity to it or directly measure it. However, it is possible to screen its effects indirectly through various controlled experiments in the laboratory. In this theory, Cosmic Consciousness Network (CCN) is the collection of consciousness or intelligence governing the world of existence and these fields are subcategories of CCN. Taheri found that by making a connection between the subject under study and the CCN, the first step consists of scanning and the second is occurrence of corrections (healing). Further, any living creature including plants, animals, or microorganisms can be healed via humans by connecting to the CCN (Taheri, 2013). In previous research, we observed that FCF reduced the growth rate of various types of bacteria; in addition, we saw that FCF treatment increased the survival of larger and healthier population (Taheri et al, 2021a). Further details about the theory of CFs are discussed in recent articles (Taheri et al, 2020a). In this way, it has been reported that FCF alleviated the adverse effects of salt stress on wheat plants (Torabi et al, 2020). Other observations that have used this method include the effects of FCF in changing cancer cell growth patterns (Taheri et al, 2020b), behaviors and biochemical alterations of Alzheimer's disease rat models (Taheri et al 2021b), and the electrical activities of the brain (Taheri, et al, 2020c). In order to investigate these concepts in other organisms, we designed an *in vitro* model to evaluation the effect of FCF on the growth characteristics of a panel of viruses with different morphogenetic properties.

Materials And Methods

In this study, we investigated the influence of FCF on the titer of representative viruses in four categories: (1) prototype viruses, (2) permissive cells for specific virus, (3) exposure of the cells infected with specific viruses to FCF and (4) calculation of virus titers using 50% tissue culture infectious dose (TCID50).

Virus selection

Viruses are mainly divided into two major groups of enveloped and non-enveloped entities. We chose prototype viruses from these two categories and investigated the role of FCF on them. Enveloped viruses used in our study include Vesicular Stomatitis Virus (VSV) and Herpes Simplex Virus 1 (HSV1) and non-enveloped viruses include Encephalomyocarditis Virus (EMCV) and Reovirus. The properties of the selected viruses are summarized in Table 1.

Table 1. Model viruses used in the present study.

Virus	Family	Genome type	Genome size / (kb)	Structure	Weight (MDa)	Size (nm)	Host	Reference
VSV	Rhabdoviridae	(Negative) Single strand RNA	11	Enveloped	265.5	70	Animal	Rodriguez et al 2002
EMCV	Picornaviridae	(Positive) Single-strand RNA	7.8	Non-enveloped	8.6	30	Animal	King et al 2011
HSV1	Herpesviridae	Double strand DNA	152	Enveloped	200	125	Human	William et al 1965
Reovirus	Reoviridae	Double strand RNA	18.2-30.5	Non-enveloped	130	80	Human	MacLachlan and Dubovi 2015

FCF application

The use of CF, according to Taheri, is possible by registering and completing the relevant form on the Cosmointel website (www.cosmointel.com). This is the only official reference for the study of all CFs. Study registration is free for all researchers at any time or location and only requires a protocol for treatment. According to the theory of CFs, in order to communicate with these fields, it is only necessary to specify the general subject of the study, the name of the target samples, the start and end time for the experiment and its stages. After that, FCF is applied according to the protocol of communication. The FCF can be applied through people who have earned the ability to mediate the CFs under the supervision of Professor Taheri (members of Cosmointel R&D team) and according to the protocol details determined by the researchers. In this study, the FCF treatment was assigned to the viruses, every hour during 72 hours of the study, from exposure to the host cell to proliferation in it.

Calculation of Virus Titers Using TCID50

Titering of selected virus stocks

Titering of stocks of viruses was calculated using the Reed and Muench method (Reed and Munech 1938). The method of Reed and Muench is widely used to calculate the 50% endpoint. By accumulating the infected and non-infected test units over the whole dilution range, the effective test population is enlarged beyond the actual number of test units on either side of the 50% endpoint.

Titer of selected viruses exposed to FCF

The permissive cells were cultured in 96-well plates at 90-100% confluency. Vero cells were inoculated with VSV and HSV1 whereas EMCV and Reovirus were used to inoculate L929 cell line. The selected viruses were inoculated under the influence of FCF. Ten-fold dilutions from the selected viruses were prepared using DMEM followed by infection of the permissive cells at 37 °C for 1 hour, enough time for viruses to be adsorbed to the cells. Second plates were incubated with the same selected viruses as positive control and were placed on a different level inside

the same CO2 incubator. FCF was started at the time of virus inoculation of the host cells up to 72 hours post infection (hpi). The plates were incubated up to 72 hours post infection (hpi) at 37 °C in CO_2 incubator. Subsequently, the cells were stained with Giemsa dye controlled by inverted light microscopy (Labomed TCM400) for cytopathic effect (CPE). The TCID50 of the viruses was calculated by the method of Reed and Muench with the formula below:

proportionate distance (PD) = ((% above 50%) - 50%)) / ((% above 50%) - (% below 50%))

log TCID50= (log dilution above 50%) + (PD x log dilution factor)

Results

Virus titer: Virus titers in the plates inoculated with the selected viruses treated with FCF were calculated and compared with the inoculated plates with the virus types without FCF treatment as a positive control at 72 hours post infection. The development of the CPE was observed using an inverted microscope. Representative results of the CPE induction in both FCF treated cells as well as control cells are depicted in Figure 1. The EMCV plates stained with Giemsa dye is presented in Figure 2 as a representative and used to calculate virus titer.

Table 2. TCID50 of the selected viruses of the present study.

Virus	Permissive cell	Virus titer in control sample (TCID50/ml)	Virus titer in FCF treated sample (TCID50/ml)	Log Difference -: decrease +:increase
VSV	Vero	10^8	10^7	-1
EMCV	L929	10^9	$10^{7.15}$	-1.85
Hsv1	Vero	$10^{4.4}$	$10^{4.9}$	+0.5
Reovirus	L929	$10^{9.9}$	$10^{9.5}$	-0.4

As reported in Table 1, the change in viral titers for the selected viruses were different in FCF compared to control. We observe a decrease from 0.4 to 1.85 in log difference for all RNA viruses in the present study, and a slight increase of about 0.5 log difference for Hsv1, the only DNA virus in the present study.

Discussion

In this preliminary study, we investigated the role of FCF on four viral types for the first time. We observed that the RNA virus titers were significantly decreased under FCF treatments. It seems that the presence of envelopes in RNA viruses as well as the size of their genome can affect their response to FCF (as shown in comparisons between EMCF and VSV).

The DNA and RNA viruses respond differently to FCF as shown in the Hsv1 results which are different from the other RNA viruses used in this study. This response may be due to the fact that the DNA viruses (Hsv1) employ a

different mechanism for survival and replication in the host cell.

According to Taheri, FCF is effective in repairing and modifying the system under study in order to achieve its optimal conditions; changes that occur in the software or the infrastructure of the system under study. In contrast to the impact of Consciousness Fields, the conventional methods of intervention in the systems under study are considered “hardware intervention”. An example of this intervention type, in the context of the present study, is death or inactivation of the microbes under influence of antimicrobial substances. However, what is observed in this study is changes (decrease and increase) in the viral population that indicate exposure to a different factor from known antimicrobial agents.

In summary, we show that firstly FCF exerts an effect on virus titers and secondly, FCF changes viral counts in concordance with the types. That is, the virus titers are different in envelope or non-envelope viruses or in RNA versus DNA viruses. Based on the preliminary results in this study, we recommend further investigations to decipher the underlying mechanisms of viral structure and function as well as their interactions with respective host cells under FCF. Viruses are ideal models to delineate the role of FCF both prior to entry in living host cells and after entry.

Declarations

Competing interests:

The authors declare no competing interests.

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Figures

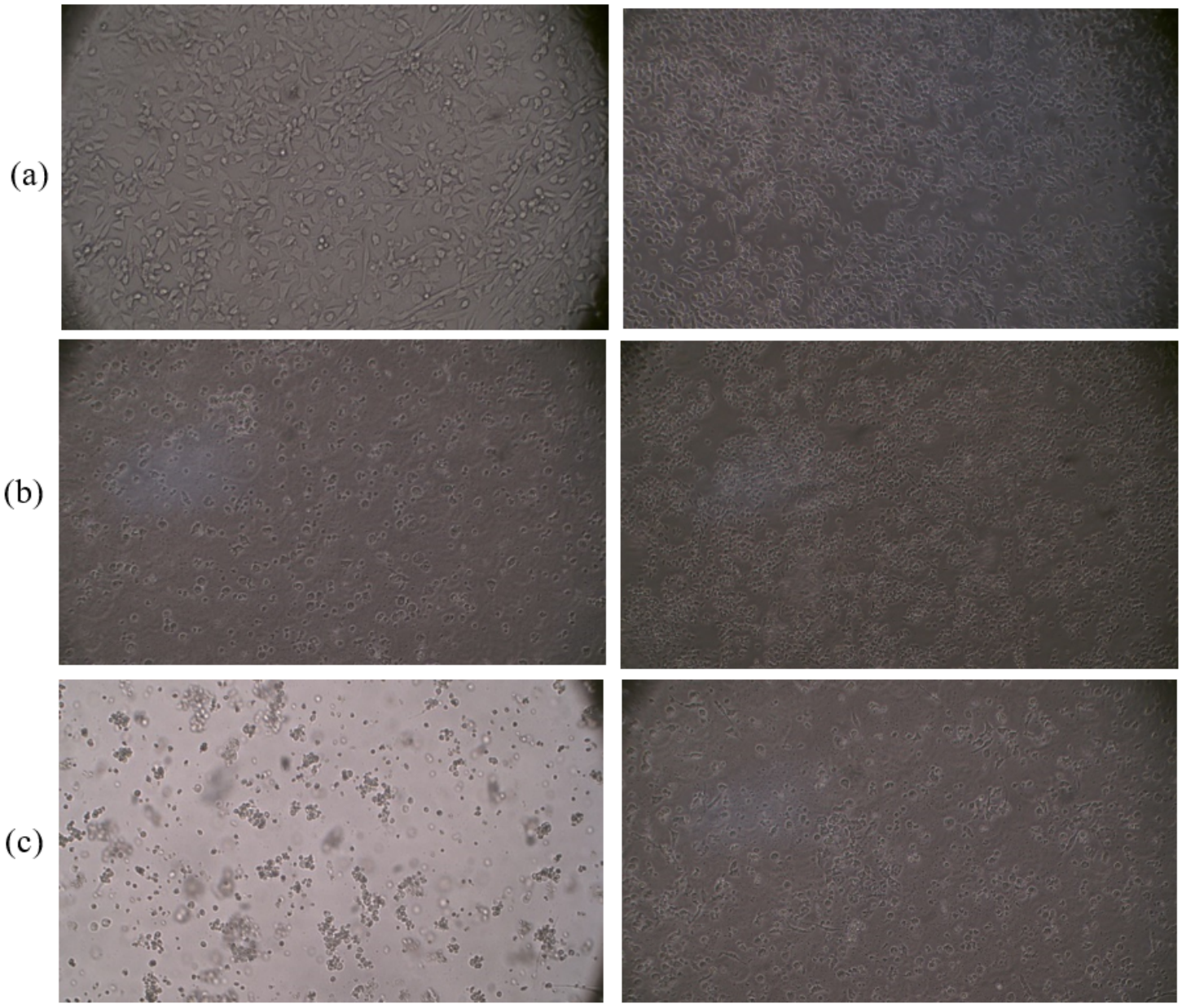

Figure 1

Vero (Left) and L929 (Right) cell (a) before VSV/EMCV titration, (b) CPE induction in control without FCF treatment, and (c) cells infected with VSV/EMCV with FCF treatment. The images present original magnification x40

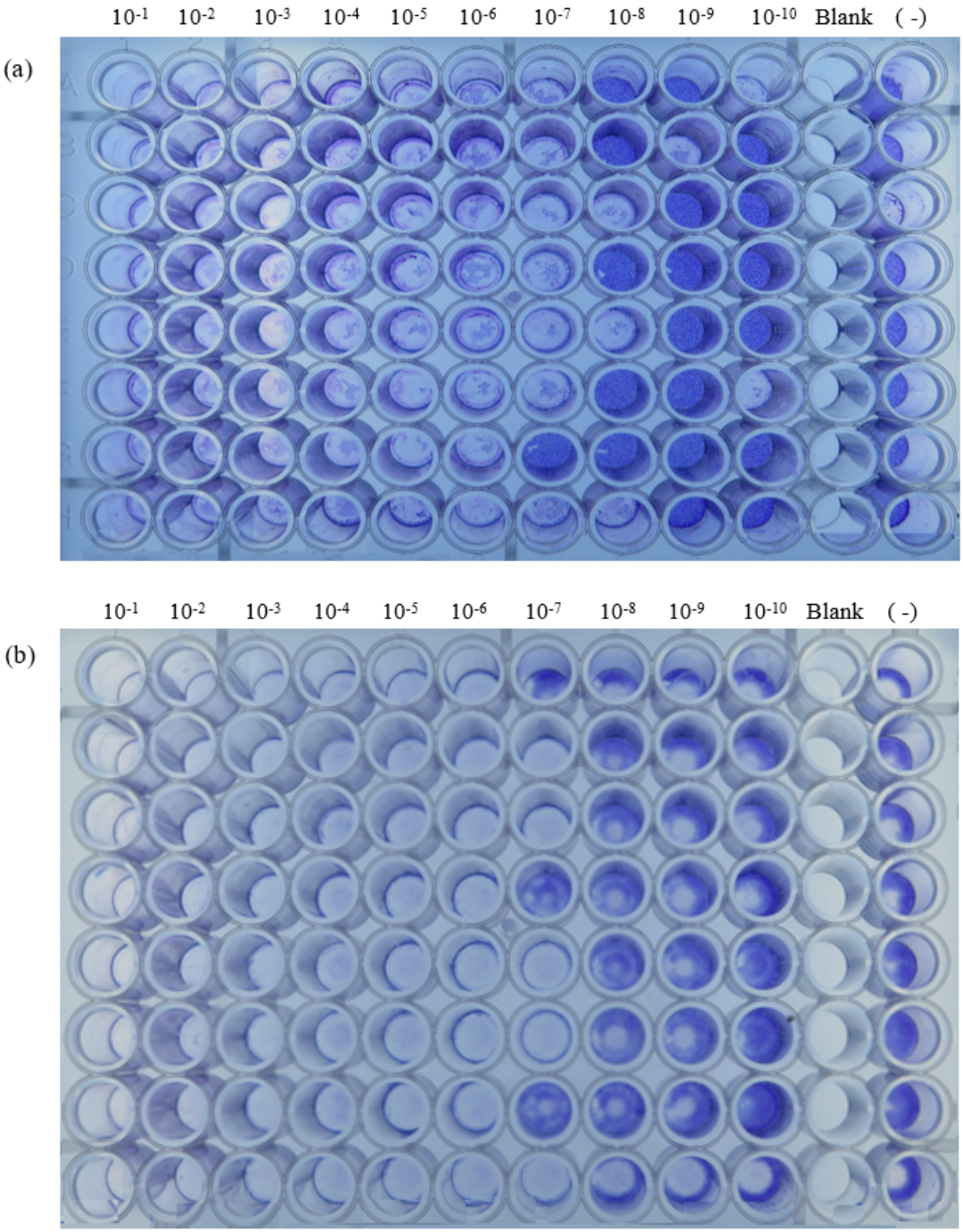

Figure 2

96-well plate used for titration of EMCV as (a) positive control and (b) treated with FCF. The infected cells are not stained with Giemsa dye. Serial dilutions from the virus are indicated from left to right for each plate. The first column in the right are used as negative control (mock-infected). The number of infected wells are reducing with increasing of the dilution from left to right.