

## Using Covid 19 Oleic Acids (COA19) Compound and Covid 19 Hyena Vaccine (CHV19) to Stop Covid19: A Systematic Review

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**Abstract:** Based on the references and resources available to the researcher, he carried out a systematic review (appraisal) research on the genes and characteristics of the new infectious disease caused by corona virus called COVID-19. Then, he sets the inclusion and exclusion criteria for this study. After that, he used the available search engines to collect the necessary data for conducting this systematic review research. The search process focused on the possible animals that have strong immunity system, plants, herbs and animals used in the medical field to strengthen the immunity system of the human bodies and cure their lungs and respiratory system diseases. After that, he have conducted a systematic review through reviewing all the previous studies and the related literature to these animals and plants components. Finally, he got out with the proposed treatment and vaccine for the covid-19 virus. The proposed medicament resulted from this systematic review consists of a mixture of oleic acids extracted from the cows and sheep grass-fed tallow and the oleic acids of some plants seed oil that can be fabricated in the form of tablets or syrup called Covid19 Oleic Acids (COA19).The proposed vaccine resulted from this systematic review is called Covid19 Heyna Vaccine (CHV19) which will be extracted from the hyena animal, particularly the spotted type.

**Key Word:** *Systematic Review, Covid-19 Oleic Acids (COA19) Tablets or Syrup, Oleic Acids ( Omega-9 fatty acids) , Covid 19 Hyena Vaccine (CHV19).*

### I. INTRODUCTION

Hui , et al. (2020)[1] stated that corona viruses are a large family of viruses that infect the respiratory system with diseases ranging in severity from colds and pneumonia that may lead to death. Reports have linked the new cases of corona virus with a live animal market in Wuhan, China, and indicated that the virus has spread from animals, which are sold as exotic foods, to humans (Brook, et al ,2020 [2]. The main means of transmission of the new virus infection between humans is the spray of secretions that are sprinkled in the air when a patient with an infected cough or sneeze (Brook, et al ,2020) [2]. A person can also become infected when touching anything contaminated with the virus and then touching his mouth, nose, or eyes. The newly discovered corona virus cause new corona virus infection is called by scientists SARS-CoV2, although it is slightly different from the corona virus that causes SARS (Hui , et al.,2020) [1].

The World Health Organization recommends frequent washing of hands with soap and water for at least 20 seconds, especially after using the toilet and before eating and after cleaning the nose, coughing or sneezing (Hui , et al.,2020) [1]. Also, they recommend medicines to reduce fever and relieve muscle pain. However, there is no vaccine, antiviral, or specific treatment for the new corona virus infection (Hui , et al.,2020) [1]. As there is no effective medicament or vaccine yet for the treatment of corona's disease 2019, the current study suggests a medicament and vaccine through conducting the current study systematic review on the plants and animals that have been used in the medical field to cure the symptoms Covid19 as shown in the following research parts.

#### 1.1.Objective of the Study

Finding an effective and productive medication and vaccine for Covid19 infectious disease.

#### 1.2.Research Questions

- 1-What is the effect of the Covid19 Hyena Vaccine (CHV19) in fighting and curing covid19?
- 2-What is the effect of oleic acids from cows and sheep grass-fed tallow mixed with the oleic acids from plants seeds oil (COA19) in fighting and curing covid19?

#### 1.3.Rationale and Significance for the Proposed Medicament and Vaccine

Brook, et al. (2020) [2] declared that Research and Prevention Centres from Covid-19 recommended the use of soap to wash hands (every 20 to 40 seconds). Soap is a mixture of fatty acids used for cleaning. Soap is

used with water to reduce and expel dirty and unwanted parts. Manufacturing of home soap is made from animal or vegetable fats, oils or greases from the organic side. As for the chemical aspect, it is made from sodium salt or potassium, one of the fatty acids, and it is formed through the interaction between both fats, oils and alkalis in a process called saponification (Burlson, et al.,2017) [3]. The fatty acids needed to make soap are obtained from grease, fat, fish oil and vegetable oils such as coconut oil, olive oil, palm oil, soybean oil, and corn oil (Terés, et al ,2008)[4]. This pushed the researcher to review all the related literature about the animal and plant fatty acids and their medical benefits for the human bodies. He concluded to focus on the oleic acids from the cows and sheep grass-fed tallow in addition to the oleic acids in the specified plants that have medical uses for the human bodies like strengthening the human body immunity system and curing the respiratory system and lung diseases such as quince, violet flowers , nymphaea, snake cucumber, pumkin, almonds, pears, jujube, apricot, cordial myxa, and mallow.

Moreover, all scientists and the research centers all over the world agreed that Covid19 virus and before it SARS virus in 2002 came out from bats. This is because the food that the bats' feed on is a source of diseases and viruses (Brook, et al.,2020) [2]. This also motivated the researcher to look for the animals feed on scavenging and have strong immunity system in their bodies to allow them survive despite the existence of different viruses in their food. After reviewing the related literature, the researcher decided to focus on hyena animals because of the medical benefits of its bodies for ages as well to be the animal that is supposed to get the vaccine for Covid19 infectious diseases from their bodies anti-bodies. Based on the above mentioned data, the current study suggests making a medicament and a vaccine for Covid19 as it will be illustrated in the following parts from this study.

## **II. STUDY PROCEDURES AND METHODS**

### **2.1. Search Strategy & Collecting Data**

The researcher searched all the available electronic databases and bibliographies for getting the appropriate selected articles for conducting the current study systematic review that is necessary to get out and sustain the proposed medicament of Covid19 Oleic Acids (COA19) tablets or syrup and the vaccine of Covid19 Hyena Vaccine (CHV19).The researcher consulted studies published in electronic data-bases and for a complete literature review, the required data were made available through various search engines such as SciFinder Scholar database, PubMed, Scopus, EBSCO, JSTOR, ScienceDirect, Google Scholar, Web of Science and other web sources such as PROTA using the study keywords. The researcher reviewed the literature up to 2020. Firstly, he studied the title and abstract of all kind of papers (regular or review papers) with a potential concern to the characteristics of Covid19 infectious diseases. Also, he gives concern to understand the role of oleic acids in immune system and the role of cows and sheep grass-fed tallow oleic acid plus the specified plants oleic acids in strengthening the immune system and curing the lungs and respiratory system of human beings. In addition to that, the researcher give concerns to the studies that focused on hyena animal and its strong immunity system against viruses. Consequently, the main key words used in the search were: “oleic acids”, “immune system”, " cows and sheep grass-fed tallow “respiratory system and lungs diseases” , “Hyena animal”, plants and respiratory system and lung diseases". Then, the texts that met the criteria of inclusion and exclusion was fully examined to extract the specific data included in the review.

### **2.2.The Study Systematic Review Protocol**

In order to search the related literature, the current study stuck to the following protocol which is represented by the inclusion and exclusion criteria as shown in table (1):

**Table (1):** The Study Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
<ul style="list-style-type: none"> <li>-Characteristics of covid19 infectious disease.</li> <li>-Animals with strong immunity system.</li> <li>-Animals feed on dirt and dead bodies that are full of viruses.</li> <li>-Animals with bodies resistant to viruses.</li> <li>-Characteristics of hyena animal.</li> <li>-Animals that their meat is eaten by people although they feed on dirt and dead bodies or scavenging.</li> <li>- Importance of the tallow of grass-fed cows and sheep.</li> <li>-Healthy benefits of cows and sheep grass-fed tallow.</li> <li>-Plants used medically in curing lungs and respiratory</li> </ul>	<ul style="list-style-type: none"> <li>-Characteristics of other viruses rather than Covid19 infectious disease.</li> <li>-Animals with weak immunity system.</li> <li>-Animals with bodies reliable to viruses.</li> <li>-Characteristics of other animals bodies rather than hyena.</li> <li>- Animals that feed on dirt and dead bodies or scavenging and their meat is forbidden for people.</li> <li>-Importance of the tallow of other animals rather than cows and sheep.</li> <li>- The tallow of grain-fed cows and sheep.</li> <li>-The portion of other acids rather than oleic acids</li> </ul>

<p>diseases of human beings.                  -The portion of oleic acids in the tallow of cows and sheep grass-fed.                  -Plants, fruits and vegetables with high oleic acids ((C18:1) not less than 16%) percentage in their seeds oil.                  -The importance of oleic acids for the immunity system and lungs and respiratory system diseases of human beings.                  -Studies conducted up to 2020.</p>	<p>in the tallow of cows and sheep grass-fed.                  -Plants, fruits and vegetables with low oleic acids percentage ((C18:1)less than16%) in their seed oil.                  -The importance of other acids rather than oleic acids for the immunity system, lungs and respiratory system diseases of human beings.                  -Studies conducted before 1990.</p>
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### **2.3.The Proposed Vaccination**

#### **Covid19 Hyena Vaccine (CHV19)**

Hyena animals and particularly the spotted Hyenas (*Crocuta crocuta*) are from the animals that have strong immune system and among the studies that supported this claim is the study of Flies, et al. (2011) [5]. This study indicated that the immune systems of the animals live on scavenging should have been characterized by selective pressures associated with surviving microbial assaults from their food. Spotted hyenas (*Crocuta crocuta*) are capable hunters that have recently descended from carrion feeding ancestors. This study indicated also that Hyenas have been survived from anthrax and rabies infections, and outbreaks of several other viral diseases. In light of the extreme disease resistance manifested by spotted hyenas, this study aimed to identify the tools available for studying immune function in spotted hyenas and use these tools to document the hyena antibody response to immunization. The researchers used ELISA and Western blots to test isotype-specific anti-feline antibodies for specific cross-reaction to hyena Ig epitopes. This study indicated the molecular weights of heavy (IgA, IgG, IgM) and the light chains of the hyena immunoglobulins by the protein electrophoresis, and they were found to be similar to feline immunoglobulins. For more validation for the cross-reactivity of the anti-feline antibodies and document the hyena humoral response, eight spotted hyenas were immunized with dinitrophenol conjugated keyhole limpet hemocyanin (DNP-KLH) and serum anti-DNP responses were monitored by enzyme-linked immunosorbent assay (ELISA) for a period of one year. The study concluded that the full array of the indicated isotype-specific antibodies will allow veterinarians and other researchers to fully investigate the hyena antibody response which can be used in future studies to test hypotheses about pathogen exposure and the immune function of this species.

Furthermore, Hui, et al. (2020) [1] reported that some viruses similar to corona or covid19 have already been found in Chinese bats, and scientists added to that bats are the only mammals that can fly, which allows them to spread in large numbers over a wide area, which means that they can house a large number of diseases or their causes. Andrew Cunningham, Professor of wildlife epidemiology at the Society of Zoology in London, revealed that when bats fly, their body temperature mimics fever, and thus pathogens that have evolved in bats have evolved, warning that the virus will likely not be affected by a higher body temperature which usually kills viruses (Hui, et al., 2020) [1]. He pointed out that the market in which animals are sold in the Chinese city of Wuhan, is the main source from which Corona virus (Covid-19) came, where wild animals are held together for sale as food or pets, and which allows for a terrifying mix of viruses to happen, according to Cunningham (Hui, et al., 2020) [1].

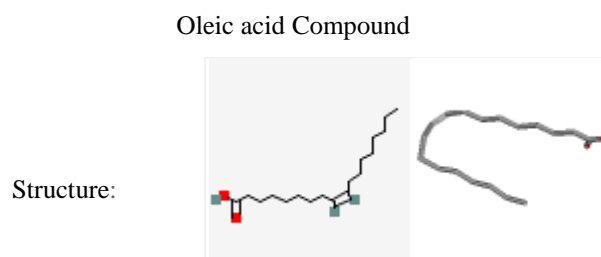
The mammals can carry many viruses with the potential to cause serious diseases in people, including rabies, Ebola, Nipah, severe acute respiratory syndrome, or SARS, and others (Brook, et al., 2020) [2]. Bats rarely get sick from those viruses (Brook, et al., 2020). Since bats are among all the animals and birds that feed on carrion and dirt, it is noticeable that they possess a strong immune system against viruses. (Brook, et al., 2020) [2]. Hyena that possesses a strong immune system against viruses as indicated in the study of Flies, et al. (2011) [5], is one of these scavenging-fed animals and birds but its meat is not forbidden and allowed to be eaten by some people all over the world ([www.islamqa.info](http://www.islamqa.info)). Furthermore, Hyenas are used for food and medicinal purposes in Somalia as this practice dates back to the times of the Ancient Greeks and Romans as well, who believed that different parts of the hyena's body were effective means to ward off evil and to ensure love and fertility (Vats, Rajeev; Thomas, Simion, 2015) [6].

Based on this short systematic review on the traits of the hyena bodies represented in their strong immunity system, their similarities to the bats, the main supposed source of spreading Covid19 and their allowed meat to be eaten, the current study recommends extracting the vaccine of Covid19 infectious disease

through injecting the virus into the body of the spotted Hyenas (*Crocuta crocuta*) and then extracting the antibodies from its body to be used later as a vaccine for all human beings to guard and protect them from covid19 disease. The current study calls this proposed vaccine Covid19 Hyena Vaccine (CHV19).

#### **2.4.Second, the Proposed Medicament Covid19 Oleic Acids (COA19) Tablets or Syrup**

Oleic acid is a colorless to pale yellow liquid with a mild odor and it floats on water.(USCG, 1999)[7]. Oleic acid is an octadec-9-enoic acid in which the double bond at C-9 has Z (cis) stereochemistry. It has a role as an EC 3.1.1.1 (carboxylesterase) inhibitor, an *Escherichia coli* metabolite, a plant metabolite, a *Daphnia galeata* metabolite, a solvent, an antioxidant and a mouse metabolite. It is a conjugate acid of an oleate. It derives from a hydride of a cis-octadec-9-ene (ChEBI)[8]. The following diagram summarizes oleic acid compound structure:



Molecular Formula:  $C_{18}H_{34}O_2$  or  $C_8H_{17}CH=CH(CH_2)_7COOH$

Synonyms: oleic acid  
112-80-1  
cis-9-Octadecenoic acid  
cis-Oleic acid  
(Z)-Octadec-9-enoic acid

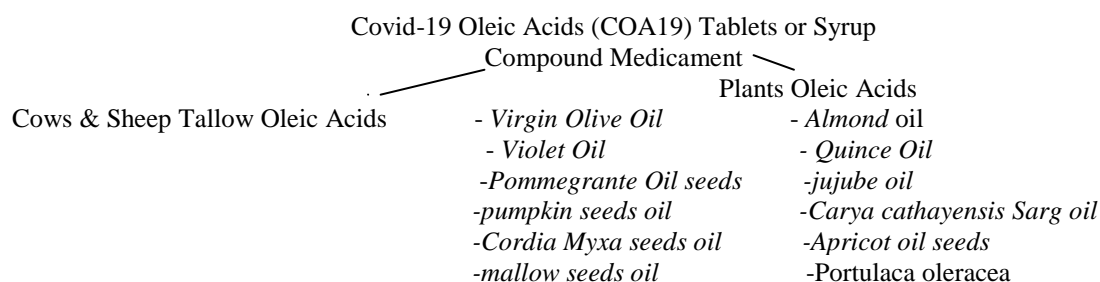
Molecular Weight: 282.5 g/mol

**Figure (1): Oleic Acid Compound Structure**

Source: Adopted from PubChem , URL: <https://pubchem.ncbi.nlm.nih.gov>

Carrillo, Cavia and Alonso-Torre (2012) [9] in their study indicated that oleic acids have the same importance as n-3 polyunsaturated fatty acids as anti-inflammatory fats with a significant role for the immune system. The aim of the study was to join and argue all the reports available and related to the topic of oleic acids. The study collected its data through searching the electronic databases and bibliographies of the suitable selected articles. The findings of the study indicated that diets rich in oleic acid have beneficial effects in inflammatory-related diseases and demonstrated the potential mechanism for the biological effect of oleic acids. This study concluded that oleic acid could be reported as an anti-inflammatory fatty acid playing a role in the activation of different pathways of immune competent cells.

Based on the evidence found in the related literature, the current study proposed the medicament of Covid19 Oleic Acids (COA19) Tablets or Syrup for the infection and the disease of covid19. It also proposed that this medicament could be extracted through using a compound of animal plant oleic acids (Omega-9 fatty acids) that could be formulated in the form of tablets or syrups extracted from the tallow of the grass-fed cows and sheep mixed with the omega-9 fatty acids found in: Virgin olive oil ; almond seed oil; violet seed oil; quince seed oil; purple pommegrante seed oil ; carya cathayensis sarg seed oil; nymphaea seed oil; snake cucumber seed oil; pumpkin seed oil; pear seed oil; jujube seed oil; apricot seed oil ; cordia myxa seed oil; mallow seed oil; and portulaca oleracea. Figure (1) demonstrates this proposed medical compound:



**Figure (2):** Covid-19 Oleic Acids (COA19) Tablets or Syrup Medicament Components  
Source: Original

As it is obvious from figure (1), the oleic acids compound (COA19) that is supposed to be used in curing Covid19 infection diseases consists of the cows and sheep grass-fed tallow and more or several than one of the fatty oleic acids found in the mentioned plants according to the suitability of which plant oleic acids are going to match with the tallow oleic acids of the cows and sheep grass-fed. This mixture of oleic acids could be made in the form of medical tablets or syrup. Carrillo, Cavia and Alonso-Torre (2012) [9] stated that oleic acids or Omega-9 is a beneficial fat from omega-9 fatty acids, and it is one of the unsaturated fats family that are usually found in vegetable and animal fats. What confirms the importance and credibility of this compound of oleic acids in treating and stopping Covid 19 infectious disease is the chemical characteristics of the elements of this compound that have been mentioned in the related studies, whether plant or animal.

### **Cows and Sheep Grass-Fed Tallow Acids**

Before reviewing the related literature concerning the oleic acids of the tallow of cows and sheep, it is worthy mentioning that it is very important that the food of the cows and the sheep that we get from their tallow the oleic acids, must be healthy herbs and green plants or grass, not feeding them on grain filled with chemicals and fertilizers. To sustain this claim Daley, et al. (2010) [10] in their study held a comparison between the products of grass-fed and grain-fed cattle. The review of this research suggested that grass-based diets can significantly improve the fatty acid (FA) composition and antioxidant content of the beef. Moreover, this study declared that the grass-based diets enhance the total conjugated linoleic acid (CLA) (C18:2) isomers, *trans* vaccenic acid (TVA) (C18:1 t11), a precursor to CLA, and omega-3 (n-3) FAs on a g/g fat basis. Furthermore, this review study concluded that grass-finished beef tends toward a higher proportion of cholesterol neutral stearic FA (C18:0), and less cholesterol-elevating SFAs such as myristic (C14:0) and palmitic (C16:0) FAs.

Cows and sheep tallow contains 50% monounsaturated fatty acids, which are beneficial to health : 47% oleic acid (C18-1, 9-9) and 3% palmitolic acid. Whereas 42% saturated fatty acids - said to be harmful - are 26% palmitic acid, 14% stearic acid, and 3% myristic acid. Moreover, 4% polyunsaturated fatty acids are 3% linoleic acid and 1% linolenic acid (very beneficial). Also, every hundred grams of fat contains 109 mg of cholesterol and 0.2 selenium, meaning that the cholesterol level in animal fat is 0.1% (Poudrier,1990) [9].

### **The Health Benefits of Cows and Sheep Grass-Fed Tallow**

Oleic acid is a monounsaturated omega-9 fatty acid found in various animal and plant sources. It has the formula  $C_{18}H_{34}O_2$  (or  $CH_3(CH_2)_7CH=CH(CH_2)_7COOH$ ) (Daley, et al.,2010). Also from what it enhances the chance of success of this compound that oleic acid is used in the form of sodium salt as a major ingredient in soap making as an emulsifying agent and according to the World Health Organisation hand washing with soap and water is the basis for hand cleansing from Covid19 virus (Daley, et al.,2010 [11]; Enig and Fallon, 2000 [12]).

There are numerous benefits for the Grass-Fed Tallow Oleic Acids that can enhance its effectively in the proposed medication (COA19) such as: Ensuring proper functioning of the brain, and improve memory as well; helping regulate blood pressure; reducing the risk of atherosclerosis and stroke; lowering blood cholesterol; reducing insulin resistance; boosting immune system as tallow is one of the rich sources of a group of fat-soluble vitamins, which are vitamins A, K, E, and D. which have an important and necessary role as the body

cannot create them, but the body must be supported with them externally; having antioxidant properties and giving anti-inflammatory effects (Daley, et al.,2010 [11]; Enig and Fallon, 2000 [12]).

To run a systematic review on the plant sources from which oleic acids come as a constituent of this medical compound, Covid19 Oleic Acids (COA19)Tablets or Syrup, we find that:

### **1) Olive Oil**

Enig and Fallon (2000) [10] in their article indicated that olive oil contains 75% oleic acid, the stable monounsaturated fat, along with 13% saturated fat, 10% omega-6 linoleic acid and 2% omega-3 linolenic acid. Also, they highlighted the importance of using extra virgin olive oil which is rich in antioxidants. Apart from its beneficial fatty acids, olive oil contains modest amounts of vitamins E and K and it is also loaded with powerful antioxidants. These antioxidants are biologically active and may reduce the risk of chronic diseases (Elkacmi , Kamil , Bennajah and Kitane, 2016)[13]. Carrillo, Cavia and Alonso-Torre (2012) [9] in their study indicated that, diets containing a high amount of olive oil in experimental animals, stops lymphocyte proliferation, and inhibits of cytokine production and a reduction in NK cell activity. Moreover, this study reported that olive oil-rich diets are not as immunosuppressive as fish oil diets. Moreover, and according to this study different studies have indicated that olive oil-rich diets do not impair the host resistance to infection. Thus, olive oil constitutes a suitable fat that may be applied in clinical nutrition and administered to critically ill patients. All this enhances the effective role of olive oil in the proposed medication of COA19 strongly in fighting and stopping Covid19 infectious disease.

### **2)Almonde Seeds Oil**

Almonds ingredients are very rich in the monounsaturated fat, oleic acid. Moreover Almond can treat several diseases: 1- Bacterial diseases; 2- Fungal diseases; 3-Nematodes, parasitic; 4- Viral diseases; 5- Phytoplasmal diseases; 6-Miscellaneous diseases and disorders. Almond oil consists mainly of oleic acid (68%) (Hernandez,2016 [14]).In a study conducted by Feyzabadi and Pasalar (2016) [15], Almond-Violet oil was used for the treatment of insomnia, headache, cough, and fever based on TPM textbooks. The findings indicated that the analysis of Almond-Violet oil by GC method showed some major components such as oleic acid (70.54%), linoleic acid (Omega-6 fatty acids) (18.22%), palmitic acid (8.51%), stearic acid (1.58%), and palmitoleic acid (0.69%). Also, the findings indicated that Monounsaturated fat consumption has been considered to decrease low-density lipoprotein (LDL) cholesterol and the oleic acid may be responsible for the hypotensive (blood pressure reducing) effects. This short review highlights the importance of oleic acids in Almonde oil and the possibility of its success in COA19.

### **3- Quince Seeds Oil**

This fruit is a rich source of Vitamin C which helps to boost immunity and aids in the treatment of inflammatory conditions. It also boasts of amazing antioxidant properties due to the presence of poly-phenolic compounds. (Górnaś , Siger, Segliņa, 2013) [16].The study of Matthäus and Özcan (2015) [17] focused on the oil content, fatty acid composition and the distribution of vitamin-E-active compounds of some selected seeds (linseed, apricot, pear, fennel, peanut, apple, cotton, quince and chufa). The study findings demonstrated that the dominating fatty acids were oleic acids and in the quince were (33.8%).Also, the study of Górnaś , Siger , Segliņa (2013)[16]. declared that the Japanese quince seed oil is a rich source of  $\alpha$ -tocopherol, phytosterols, and  $\beta$ -carotene. The seed oil in this study included saponification value (196.37 mg KOH/g), unsaponifiable matter (3.15%), iodine value (96.6 g/100 g), peroxide value (0.6 mEq O /kg), acid value (0.88 mg KOH/g), p-anisidine value (1.86), Totox value (3.06), Rancimat test (7.35 h), carotenoid (10.69 mg/kg) and chlorophyll content (0.11 mg/kg). Linoleic acid (C , 52.36%), oleic acid (C , 33.8%), and palmitic acid (C , 9.46%). Based on this short review, the quince oleic acid is supposed to be effective in the COA19 compound as well.

### **4-Purple Pomegranate Seed oil**

The ancient Egyptians regarded pomegranate as a symbol of prosperity and ambition. According to the Ebers Papyrus, one of the oldest medical writings from around 1500 BC, Egyptians used the pomegranate for treatment of tapeworm and other infections (Soetjijto, Pradipta and Timotius,2010) [18]. The aim of the study of Soetjijto, Pradipta and Timotius (2010) [18] was to indicate the components of the fatty acid in seed oil of the red and purple pomegranate (*Punica granatum* L). The separation and identification of pomegranate seed oil was done by using GCMS. Both of the two kinds displayed the same major fatty acids as palmitic, stearic, oleic, linoleic and punisic acid. Oleic acid ( 19-21% ) and linoleic acid ( 20-21% ) were found as the most

dominant fatty acids in the red pomegranate, whereas purple pomegranate seed oil was dominated by oleic acid ( 41-43% ) and puniolic acid ( 0-25% ). Based on the medical importance of the pomegranate fruit and the portion of oleic acids found in it, particularly the purple kind, this study suggests the possibility of its effectiveness in the proposed medical compound COA19.

#### **5-Violet Seeds Oil**

Wild violets are rich in vitamins A and C as well as other vitamins and minerals and known to strengthen the immune system and reduce inflammation. Violets can heal sore throats, colds, sinus infections, and other respiratory conditions (Hellinger et al., 2014) [19]. In a study conducted by Feyzabadi , Pasalar (2016) [15] on Almond-Violet oil, the findings indicated that the analysis of Almond-Violet oil by GC method showed some major components such as oleic acid (70.54%), linoleic acid (Omega-6 fatty acids) (18.22%), palmitic acid (8.51%), stearic acid (1.58%), and palmitoleic acid (0.69%). This highlights the importance of oleic acids in violet seeds oil and the possibility of its success in COA19.

#### **6) Carya Cathayensis Sarg Seeds Oil (Hickory)**

In a study carried out by Hu, Du and Zhang (2018) [20] found that Hickory (*Carya cathayensis* Sarg.) accumulates more than 70 % oil and 90 % unsaturated fatty acids with considerably high oleic acid in its mature embryo. Furthermore, during investigating the fatty acid compositions of hickory oil at the study different stages, the oleic acid content was increasing from about 20 % at stage 1 to 80 % at stage 3 and keeping constant at stage 4–5. On the contrary, the amount of linoleic acid was high at stage 1–2 (approximately 40–50 %), but dropped rapidly down to roughly 10 % then kept low levels at the late stages. In conclusion, according to this study results, a mature hickory nut contains more than 70% of oil, herein more than 90 % unsaturated fatty acids (including 63.65 % and 73.81 % oleic acid, 23.43 % and 16.90 % linoleic acid, 4.37 % and 1.74 % linolenic acid each year, respectively). The high ratio of oleic acids in the mature hickory gives a strong signal on its effectiveness in the proposed medicament Covid19.

#### **7) Nymphaea Seeds Oil**

In the study of Aliyu1, et al. (2017)[21], two underutilized seeds *Nymphaea lotus* and *Nymphaea pubescens* were studied. Oils from these two seeds were extracted using soxhlet extraction with n-hexane. Gas chromatographic coupled mass spectrometry analysis of the *Nymphaea*. Lotus seed oil showed that linoleic (13.01%), palmitoleic (4.46%), arachidic (9.01%) and stearic (12.45%) acids were the major fatty acids whereas oleic (37.85%), palmitic (23.57%) and stearic (5.71%) were the major fatty acids detected in *Nymphaea pubescens* seed oil. In addition, oil extracted from *Nymphaea pubescens* seed was found to have better quality than *Nymphaea* seeds. The fatty acids composition of *Nymphaea pubescens* seed oil is similar to palm and groundnut oil. Extracted oil from *Nymphaea pubescens* seed is unsaturated which type is classified in the oleic – linoleic acid group. This work has shown that *Nymphaea pubescens* seed oils have great nutritional and industrial potentials which boosts its effectiveness in the proposed medication COA19.

#### **8) Snake Cucumber Seed Oil**

The American cucumber boosts the immunity system as it abounds in vitamin C and cucurbitacin which combat disease and reinforce immunity (Ngure, et al., 2015) [22]. The study of Ngure et al. (2015) [22] illustrated that seed oil content in the cucumber seeds ranged from 41.07% in ‘Hazerd’ to 29.24% in ‘Lubao’ while *C. anguria* had 23.3%. The Fatty acids detected were linoleic (C18:2), palmitic (C16:0), oleic (C18:1), stearic (C18:0), linolenic (C18:3), behenic (C22:0), arachidic C20:0), lignoceric (C24:0), eicosenoic (C20:1), palmitoleic (C16:1), and myristic (C14:0), among other unidentified fatty acids. The high percentage of oleic acid (41.07%) in snake cucumber enhances the possibility of snake cucumber oleic acids effectiveness the proposed medication production of COA19.

#### **9) Pumpkin Seeds Oil**

The study of Tsaknis, Lalas and Lazos (1997) [23] aimed to present more data on pumpkin seed oil components as well as to determine the effect of purification on them . The study proved that the main fatty acids of pumpkin seed oil are linoleic and oleic. Due to its high content in unsaturated fatty acids, it has been suggested as a substitute for highly unsaturated oils in diets. The study also declared that GLC analysis for the fatty acid composition of the seed oil showed that the predominant unsaturates were linoleic (42%) and oleic

(38%), while the major saturates were palmitic (12,7%) and stearic (6%). All this evidence supports the effectiveness of pumpkin oleic acids in the proposed of medication of COA19.

#### **10) Pear Seeds Oil**

Yukui, et al. (2015) [24] indicated that pears are a good source of antioxidants, like vitamin C. which gives a powerful boost to the immune system. In the study conducted by Yukui, et al. (2015) [24], oil content and fatty acid composition of apple and pear seeds were analyzed. Apple seeds and pear seeds contained a large quantity of oils (apple seed oil, 291 g/kg seed; pear seed oil, 179 g/kg seed). Eleven types of fatty acids were identified in apple and pear seed oil; c16:0, c16:1, c18:0, (c18:1, oleic acid), c18:2, c18:3, c20:0, c20:1, c20:2, c22:0, and c24:0. The dominant fatty acids in apple seed oil were c18:1 (43.03 g/100g oil), c18:0 (26.47 g/100g oil), and c16:0 (5.60 g/100g oil). The same three fatty acids were also dominant in pear oil (c18:1, 56.80 g/100g oil; c18:0, 20.28 g/100g oil; and c16:0, 6.39 g/100g oil). Compared with previous research, an additional six fatty acids were found in apple seed oil (c16:1, c18:3, c20:1, c20:2, c22:0, and c24:0). Unsaturated fatty acids comprised 70.598 g/100g of apple seed oil and 77.846 g/100g oil of pear seed oil. In conclusion, apple seeds and pear seeds contain a large quantity of oil comprised of many fatty acids, especially unsaturated fatty acids like oleic acids. This data suggests strong enhances for the effectiveness of the pear oleic acids in the proposed study medicament COA19.

#### **11) Jujube Seeds Oil**

This fruit and its seeds are used in Chinese and Korean traditional medicine for anti-fungal, anti-bacterial, anti-ulcer, anti-inflammatory purposes and sedation, antispastic, antifertility/contraception, and antinephritic, cardiogenic, antioxidant, immunostimulant, and wound healing properties ( El Alouia, et al., 2012) [25]. The study of El Aloui, et al. (2012) [25] indicated that the oils isolated from seeds of Jujube were investigated by capillary gas chromatography. The oleic and linoleic acids were defined as the major compounds of the jujube seeds. A comparison of four Tunisian ecotypes (Sfax, Choutrana, Mahres and Mahdia) shows that they differ only in the quantitative composition, while the qualitative profiles are similar. In fact, significant differences were observed for each individual fatty acid (FA) of jujube seeds between the ecotypes. The major FA observed was the oleic acid or omega-9 at a level of 46.6% and 46.6% of the total oil (w/w) in Mahdia and Sfax ecotypes. Then, its composition decreased slightly to reach the proportions of 43.6% and 45.5% in seeds from ecotype Choutrana and Mahres respectively. The study also concluded that the unsaturated fatty acids ranged from 40.4% to 44.4% of the total fatty acids for each ecotype. The medical benefits and the high percentage of the oleic oil in the jujube plant make its possible effectiveness in the proposed medicament COA19 very high.

#### **12) Apricot Seeds Oil**

Apricots are a great source of many antioxidants, including beta carotene and vitamins A, C, and E. (Shariatifar, Khaniki, Mohammad, Nabizadeh, 2015)[26]. In their study, Shariatifar, Khaniki, Mohammad, Nabizadeh (2015) [26] indicated that the apricot seeds oils tested in this study displayed a high content of unsaturated and low saturated fatty acids. The study findings indicated that the wild apricot kernel oil contained oleic acid (60.01-70.56 %) which is the key fatty acid found in wild apricot kernel oil, followed by linoleic acid (19.74-23.52 %) and palmitic acid (2.35-5.97 %). It is obvious that apricot kernel oil has a high percentage of oleic acids which boosts its effectiveness in the proposed medicament COA19.

#### **13) Cordia Myxa Seeds Oil**

Ragasa, et al. (2015) [27] reported that the fatty oil content in the seeds of cordia myxa was found to be 7.60% with stearic, oleic and linoleic acids as the major constituents. The oleic acid constituent was found to be (48-52%). Furthermore, the study of Al-Snafi (2016) [28] declared that the preliminary phytochemical screening carried out on Cordia myxa revealed the presence of oil, glycosides, flavonoids, sterols, saponins, terpenoids, alkaloids, phenolic acids, coumarins, tannins, resins, gums and mucilage. This study stated that the pharmacological studies revealed that Cordia myxa possessed analgesic, anti-inflammatory, immunomodulatory, antimicrobial, antiparasitic, insecticidal, cardiovascular, respiratory, gastrointestinal and protective effects. This highlighted the chemical constituents and pharmacological effects of Cordia myxa and the possibility of its success in the proposed medication COA19.



#### 14) Mallow Seeds Oil

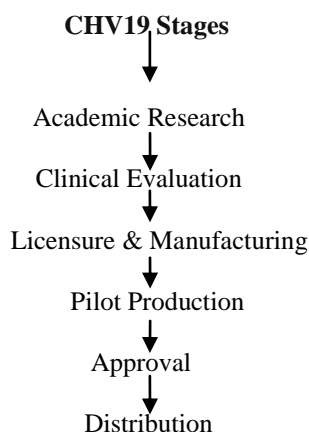
Known scientifically as *Malva sylvestris*, and it can boost the immune system by preventing bacterial infections and clearing out the respiratory tracts (Alamgeer, et al., 2018) [29]. The study of Tešević, et al. (2012) [30] indicated the oil content and the fatty acids of the three Malvaceae species (*Malva sylvestris* L., *Malva sylvestris* L. var. *mauritiana* and *Althaea officinalis* L.) from Serbia. The study findings revealed that the oil yields from the mallow seeds varied from 7.18 to 9.60%. The main fatty acids of the seed oils were linoleic acid (44.14-54.49%), oleic acid (13.00-16.99%) and palmitic acid (11.45-24.29%). However, the low percentage of oleic acids in mallow, it is included in the review because of its effective health benefits for the lungs and the respiratory systems. This boosts its effectiveness in the proposed medication of COA19.

#### 15-Portulaca Oleracea

The dominant fatty acids in the purslane seed oil (PSO) according to the study of Mousavi and Niazmand (2017) [31] includes linoleic acid (C18:2, 33.63%),  $\alpha$ -linolenic acid (C18:3, 26.77%), palmitic acid (C16, 16.43%), and oleic acid (C18:1, 16.36%). The saturated fatty acids of the PSO amounted to 21.09% of the total fatty acids, while the unsaturated fatty acids amounted to 78.9%. However, the low percentage of the oleic acid in portulaca oleracea, its medical benefit for the human body makes its inclusion for getting the proposed medicament COA19 valuable and beneficial.

### III. RESULTS & DISCUSSION

Based on this study systematic review, inclusion and exclusion criteria, and the available related literature, the researcher managed to get to a proposed vaccine and medication for covid19 infectious disease suggested in the current study. Concerning the proposed vaccine for Covid19. The characteristics of the body of Hyena animal, particularly the spotted Hyenas (*Crocuta crocuta*) has a strong immune system and is very resistant to viruses. As mentioned by some researchers ( e.g. Flies, et al., 2011[5]; Troyer, et al. 2005[32]) that the pathogens to which wild spotted hyenas are known to be exposed include CDV, FIV, feline panleukopenia virus/canine parvovirus, feline corona virus/feline infectious peritonitis virus, feline calicivirus, rabies, and bluetongue, adding to this that they feed on carrion and dirt as mentioned in the previous studies and the related literature such as Flies, et al. (2011) [5]. Furthermore, the immunology tools of spotted Hyenas indicated in the study of Flies, et al. (2011) [5] opened the door to more advanced studies on their immunity systems, their bodies anti-bodies and their remarkable ability to survive disease outbreaks that have decimated wild populations of other carnivore species. What also strongly supports the current study claim is that the hyena meat and bones were used medically since along time in the past as mentioned in the study of (Vats, Rajeev;Thomas, Simion,2015[6]). Additionally, their meat is not forbidden and allowed for eating by some people in different parts of the world [33]. All These reasons pushed the researcher of the current study to propose getting the vaccine for Covid19 from the anti-bodies of the spotted Hyenas (*Crocuta crocuta*) and name it Covid 19 Heyna Vaccine (CHV19) as it is shown in figure (3):



**Figure: (3):** Steps for the Proposed CHV19

Source: Adapted from Mitchell , Philipose and Sanford (1993)

Regarding the current study proposed medicament for Covid19 which is Covid19 Oleic Acids (COA19) Tablets or Syrup. The systematic review of the current study demonstrated the importance of oleic acids,

whether those extracted from the tallow of cows and sheep or from the seeds of the plants that were mentioned in the study in the treatment of the diseases of the respiratory system, lungs, and strengthening immunity in humans. Using the inclusion and exclusion criteria, the search engines (e.g. Google scholar, Saudi digital library) and available resources, the current study, recommends strongly making a compound of a mixture of oleic acids extracted from the tallow of cows and sheep grass-fed with those compatible with them in the oil seeds of the mentioned plants in the study to be made in the form of capsules or syrups for the treatment of Covid19 disease which spread in the last period. As the most important symptoms of it that it was attacking the lungs and cause deaths due to shortness of breath according to the official statements issued from the World Health Organization.

According to the data obtained from the available resources, the current study proposes the constituents of the proposed medicament COA19 as show in table (1).

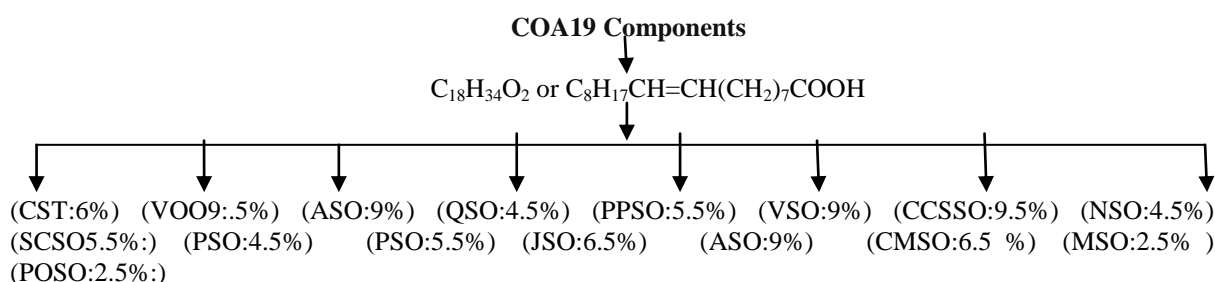
**Table (2): Percentages of Material Oleic Acid in the Proposed Medical Compound COA19**

Materials	MOAP (C18:1)	PMOACOA19C
Cows and Sheep Tallow (CST)	47%	6.%
Virgin Olive Oil (VOO)	75%	9.5%
Almonde Seeds Oil (ASO)	70.54%	9%
Quince Seeds Oil (QSO)	33.8%	4.5%
Purple Pomegranate Seed oil (PPSO)	43%	5.5%
Violet Seeds Oil (VSO)	70.54%	9%
Carya Cathayensis Sarg Seeds Oil (CCSSO)	73.81 %	9.5 %
Nymphaea Seeds Oil (NSO)	37.85%	4.5%
Snake Cucumber Seeds Oil (SCSO)	41.07%	5.5%
Pumpkin Seeds Oil (PSO)	38%	4.5%
Pear Seeds Oil (PSO)	43.03	5.5%
Jujube Seeds Oil (JSO)	46.6%	6.5%
Apricot Seeds Oil (ASO)	70.56 %)	9%
Cordia Myxa Seeds Oil (CMSO)	52%	6.5 %
Mallow Seeds Oil (MSO)	16.99%	2.5%
Portulaca Oleracea Seeds Oil (POSO)	16.36%	2.5%
Total	804.05 %	100%

MOAP: Material Oleic Acid Percentage

PMOACOA19C: Percentages of Material Oleic Acid in the Proposed Medical Compound COA19

As it is indicated in table (1) and based on what was mentioned in previous studies during the systematic review, it has been determined the percentages of the oleic acids that will be extracted from each of the specified plants or materials that contribute to making up the new medication compound (COA19), which is supposed to be used in the medication of the new infectious disease Covid19. According to the percentage of the oleic acids in each plant, its percentage in the proposed medication COA19 is estimated. As indicated for example in Table (1) which shows that the highest percentage will be allocated for the olive oil (9.5%) and Carya Cathayensis Sarg Seeds Oil (Hickory) (9.5 %), whereas the lowest percentage will be allocated for mallow seeds oil (2.5%) and portulaca oleracea seeds oil (2.5%). What enhances the degree of success for this medical compound to stop Covid 19 that its sources have great medical benefits for the immunity systems and lungs and respiratory system diseases of human bodies. Additionally, the oleic acid concentration in the new compound is 100 percent. As there is no source from the components of this compound, whether animal or plant contains one hundred percent of oleic acids, as the highest percentage is found in olive oil (75%) and the lowest percentage is found in the portulaca oleracea seeds oil (6.36%). If the oleic acids of these components match together as proposed in this study to produce the proposed medicament of Covid19 Oleic Acids (COA19) Tablets or Syrup as shown in figure (3), its effectiveness will be very high in stopping Covid 19 infectious disease.



**Figure (3):** Percentages of Proposed Covid19 Oleic Acids (COA19) Tablets or Syrup  
 Source: Original.

#### IV. CONCLUSION

The current study relied on the method of collecting the necessary data from the previous studies and related literature, systematic review. Some search engines like SciFinder Scholar database, PubMed, Scopus, EBSCO, JSTOR, ScienceDirect, Google Scholar, Web of Science Google Scholar were used to the necessary data after setting the inclusion and exclusion criteria protocol. The used key words were related to the symptoms of Covid-19 disease, the animals with strong immune systems like hyena, cows and sheep grass-fed tallow and plants oleic acids. As well as the studies conducted on the materials, elements and compounds used in treating the similar symptoms of the Covid19 disease. Based on the collected data from this systematic review, the study concluded that the proposed medicament for covid-19 disease is a mixture of the oleic acids made from the tallow of cows and sheep grass-fed mixed with the compatible plants oleic acids extracted from the specified plants in this study, i.e. their oleic acids have to match with the tallow oleic acids. Based on the percentages of oleic acids in the sources, either plants or animals, of the proposed medication COV19 according to the related literature, the current study identified the percentage of each source. This proposed medicament is called Covid19 Oleic Acids (COA19) Tables or Syrup as its components indicated in Table (1) and figure (3). Furthermore, the study recommends strongly extracting the vaccine from hyena animal because of the physical anatomy of its body as it has a strong immune system and is very resistant to viruses however, it always feeds on scavenging. The study named the proposed vaccine Covid19 Hyena Vaccine (CHV19).

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