



# Certificate of Appreciation

201/STIKesWDH/ICSH/XI/2022

to

Dr. Apt. M. Yanis Musdja

**ORAL PRESENTER**

**1<sup>ST</sup> INTERNATIONAL CONFERENCE ON SUSTAINABLE HEALTHCARE (ICSH)  
"SUSTAINABLE WELLNESS AND ENVIRONMENT"**

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**NO SKP PPNI : 2239/DPP.PPNI/SK/K.S/X/2022**

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# The Role of the Synergy of Indonesian Herbal Drink with Vaccine of Covid-19 to Prevent Covid-19

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**ICSH**  
International Conference on Sustainable Healthcare



- 1. SARS-CoV-2 (the virus that causes COVID-19) has numerous mutations with potential to increase transmissibility.**
- 2. At present there are at least 5 types of known pathogens in humans, namely: Alpha, Beta, Gamma, Delta and Omicron.**
- 3. The vaccine has succeeded in reducing COVID-19 sufferers in the world, but it is not certain that the Covid-19 vaccine can combat the mutation of SARS-CoV-2.**
- 4. How long the COVID-19 vaccine works in the body is difficult to predict with certainty, because the effect differs from one individual to another.**





5. Herbal plants have many benefits for health
6. Herbs that are useful for fighting COVID-19, especially those that have properties as: Antivirus, Immunomodulator, anti ARDS, anti-inflammatory, and which can fight the symptoms of COVID-19.
7. Indonesia is the richest country with herbs and since ancient times, Indonesian ancestors have used herbs to fight various diseases, including respiratory disorders caused by viruses.





## ***WHO → Traditional use of herbal medicines***

**Herbal medicines include herbs, herbal materials, herbal preparations and finished herbal products, that contain as active ingredients parts of plants, or other plant materials, or combinations.**







# Method

**The Study Literature Review (SLR) method is a scientific study that focuses on one particular topic, which will provide an overview of the development of that topic. SLR is a method of analyzing books, scientific articles, theses and other literature related to research topics that is carried out systematically, clearly and objectively**



# Result



**Herbal plants that play an important role in combat COVID-19 are those that have properties as immunomodulators, anti-virus, anti-inflammatory and can cure other symptoms of COVID-19.**





# **IMMUNOMODULATOR MECHANISM OF ACTION:**

**Stimulates phagocytic cells, white blood cells (neutrophils, monocytes, eosinophils), and natural vessel cells (macrophages) to carry out a phagocytic response (the main mechanism for eliminating pathogens and cell debris)**



## **ANTIVIRAL MECHANISM OF ACTION:**

**In general, the mechanism of action of antivirals in inhibiting growth is by inhibiting reproduction by inhibiting the formation of one of the core proteins so that DNA is destroyed, reacting with RNA polymerase and resulting in inhibition of the transcription process, inhibiting DNA-dependent RNA synthesis, inhibiting DNA synthesis. DNA by combining with DNA and inhibiting DNA polymerase**



# **ANTI-INFLAMMATORY MECHANISM OF ACTION:**

**Inhibits cyclooxygenase and lipoxygenase enzymes so that eicosanoids (prostaglandins and leukotrienes) which are inflammatory mediators are inhibited and inflammation is reduced.**



<b>PLANTS NAME</b>	<b>ACTIVE COMPOUND IMMUNOMODULATOR</b>
<b>Bawang putih (<i>Allium sativum</i>)</b>	<b>Organosulphur (allicin)</b>
<b>Bangle (<i>Zingiber montanum</i>)</b>	<b>Phenylbutenoid</b>
<b>Ciplukan (<i>Physalis Angulata</i>)</b>	<b>Flavonoids</b>
<b>Jahe merah (<i>Zingiber officinale var rubrum</i>)</b>	<b>Flavonoids (gingerol)</b>
<b>Jambu Biji (<i>Psidium guajava</i>)</b>	<b>Flavonoids</b>
<b>Katuk (<i>Sauropus androgynus</i>)</b>	<b>Flavonoids</b>
<b>Kecombrang (<i>Etlingera elatior</i>)</b>	<b>Flavonoids</b>
<b>Kejibeling (<i>Strobilanthes crispa</i>)</b>	<b>Tanin dan Flavonoids</b>
<b>Kunyit (<i>Curcuma longa</i>)</b>	<b>Curcumin and polysaccharides</b>
<b>Lengkuas (<i>Alpinia galanga</i>)</b>	<b>Flavonoids</b>
<b>Manggis (<i>Garcinia mangostana</i>)</b>	<b>Phenolic compounds or polyphenols (xanthone (<math>\alpha</math> dan <math>\beta</math> mangositin), epikatekin dan antosianin)</b>



<b>PLANTS NAME</b>	<b>ACTIVE COMPOUND IMMUNOMODULATOR</b>
<b>Mengkudu (<i>Morinda citrifolia</i>)</b>	<b>Flavonoids and tannins. But those that play a more role in improving the immune system are phyrophorbide and pheophorbide phyppolesper</b>
<b>Meniran (<i>Phyllanthus niruri</i>)</b>	<b>Phyllanthin, hypophyllanthin, niranthin, phyltetralin, astragalin, quercetin, corilagin, catechin, geraniin, gallic acid, and ellagic acid.</b>
<b>Sambiloto (<i>Andrographis paniculata</i>)</b>	<b>Andrographolide</b>
<b>Sembung (<i>Blumea balsamifera</i>)</b>	<b>Essential oils, flavonoids, tannins, and resins</b>
<b>Sirih hijau (<i>Piper betle</i>)</b>	<b>Hydroxychavicol (HC)</b>
<b>Daun tempuyung (<i>Sonchus arvensis</i>)</b>	<b>Flavonoids (kaempferol, luteolin-7-O-glycoside, and apigenin-7-O-glycoside)</b>





<b>PLANTS NAME</b>	<b>ANTI-VIRUS COMPOUNDS</b>
<b>Bandotan (<i>Ageratum conyzoides</i>)</b>	<b>Flavonoids, Saponins</b>
<b>Eukaliptus (<i>Eucalyptus</i>)</b>	<b>Essential oil (1,8-cineole)</b>
<b>Jahe (<i>Zingiber Officinale</i>)</b>	<b>[6] -[8]- and [10] -gingerol</b>
<b>Jambu biji (<i>Psidium guajava</i>)</b>	<b>Quercetin, Catechins (tannins)</b>
<b>Bangle, (<i>Zingiber montanum</i>)</b>	<b>Flavonoids, phenylbutanoids,</b>
<b>Kayu Manis (<i>Cinnamomum Cassia</i>)</b>	<b>Trans-cinnamaldehyde</b>
<b>Kelor (<i>Moringa oleifera</i>)</b>	<b>Flavonoids (Apiin, epicatechin, and hesperetin)</b>
<b>Kencur (<i>Kaempferia Galanga</i>)</b>	<b>Flavonoid (Quersetin)</b>
<b>Kunyit (<i>Curcuma longa</i>)</b>	<b>Curcuminoids Curcumin</b>
<b>Lidah buaya (<i>Aloe Vera</i>)</b>	<b>Flavonoids (Quercetin, catechin hydrate and kaempferol)</b>
<b>Manggis (<i>Garcinia mangostana</i>)</b>	<b><math>\alpha</math>-Mangostin</b>
<b>Meniran (<i>Phyllanthus Niruri</i>)</b>	<b>Tanin (Corilagin)</b>
<b>Murbei (<i>Morus Alba</i>)</b>	<b>Polifenol (Cyanidin-3-rutinoside (C3R), cyanidin-3-glucoside (C3G))</b>
<b>Pare (<i>Momordica Charantia</i>)</b>	<b>Ribosome Inactivating Proteins (<math>\alpha</math> - dan <math>\beta</math> -Momorcharin)</b>



<b>PLANTS NAME</b>	<b>ANTI-VIRUS COMPOUNDS</b>
<b>Sambiloto (<i>Andrographis paniculata</i>)</b>	<b>Diterpenoid Diterpenoid (andrographolid (AD), 14-deoxyandrographolide (DAD), ), 14-Deoxy-11,12-dehydroandrographolide (DAP))</b>
<b>Kemangi (<i>Ocimum basilicum</i>)</b>	<b>Triterpenoids (Ursolic Acid) Flavonoids (Apigenin)</b>
<b>Sirih Merah (<i>Piper Crocatum</i>)</b>	<b>Flavonoids, Saponins, Tannins</b>
<b>Sirsak (<i>Annona Muricata</i>)</b>	<b>Flavonoids (Rutin (quercetin 3-O-rutinoside))</b>
<b>Teh hijau (<i>Camellia Sinensis</i>)</b>	<b>Catechins (epigallocatechin-3-gallate (EGCG))</b>



<b>PLANTS NAME</b>	<b>ACTIVE COMPOUND ANTI-INFLAMMATORY</b>
<b>Johar (<i>Cassia Siamea</i>)</b>	<b>Flavonoids in the form of flavones and isoflavones</b>
<b>Kayu Manis (<i>Cinnamomum Burmanni</i>)</b>	<b>Flavonoids</b>
<b>Kelor (<i>Moringa oleifera</i>)</b>	<b>Flavonoids (quercetin)</b>
<b>Kencur (<i>Kaempferia galanga</i>)</b>	<b>Flavonoids</b>
<b>Ketumbar (<i>Coriandrum sativum</i>)</b>	<b>Flavonoids (quercetin)</b>
<b>Kirinyuh (<i>Eupatorium Odoratum.</i>)</b>	<b>Flavonoids</b>
<b>Kunyit (<i>Curcuma longa</i>)</b>	<b>Curcumin, Xanthorrhizol</b>
<b>Mahkota dewa (<i>Phaleria macrocarpa</i>)</b>	<b>Phenolic, flavonoid</b>
<b>Pare (<i>Momordica charantia</i>)</b>	<b>Quercetin, Luteolin, Kaempferol</b>
<b>Patikan Kebo (<i>Euphorbia Hirta</i>)</b>	<b>Flavonoids</b>
<b>Rumput Mutiara (<i>Ordelandia corymbosa</i>)</b>	<b>Flavonoids</b>
<b>Salam (<i>Eugenia Polyantha</i>)</b>	<b>Flavonoids</b>
<b>Seledri (<i>Apium Graveolens</i>)</b>	<b>Apigenin and apiin (flavonoid glycosides)</b>
<b>Sirih Merah (<i>Piper Crocatum</i>)</b>	<b>Flavonoids</b>
<b>Temulawak (<i>Curcuma xanthorrhiza</i>)</b>	<b>Curcumin</b>



<b>PLANTS NAME</b>	<b>ACTIVE COMPOUND ANTI-INFLAMMATORY</b>
<b>Daun Afrika (<i>Vernonia amygdalina</i>)</b>	<b>Flavonoids</b>
<b>Bayam Duri (<i>Amaranthus spinosus</i>)</b>	<b>Flavonoids</b>
<b>Beluntas (<i>Pluchea Indica</i>)</b>	<b>Flavonoid, Essential Oil (Eugenol), Tanin</b>
<b>Bangle (<i>Zingiber montanum</i> )</b>	<b>Flavonoids, Terpenoids, phenylbutanoids, dimethoxyphenyl butadiene, and cassumunaquinone</b>
<b>Binahong (<i>Anredera Cordifolia</i>)</b>	<b>Oleanolic Acid, Ursolic Acid And Flavonoids.</b>
<b>Ceremai (<i>Phyllanthus acidus</i>)</b>	<b>Flavonoids, Steroids, Saponins</b>
<b>Jamblang (<i>Syzygium cumini</i>)</b>	<b>Flavonoids</b>
<b>Jambu Mete (<i>Anacordium occidentale</i>)</b>	<b>Flavonoids</b>



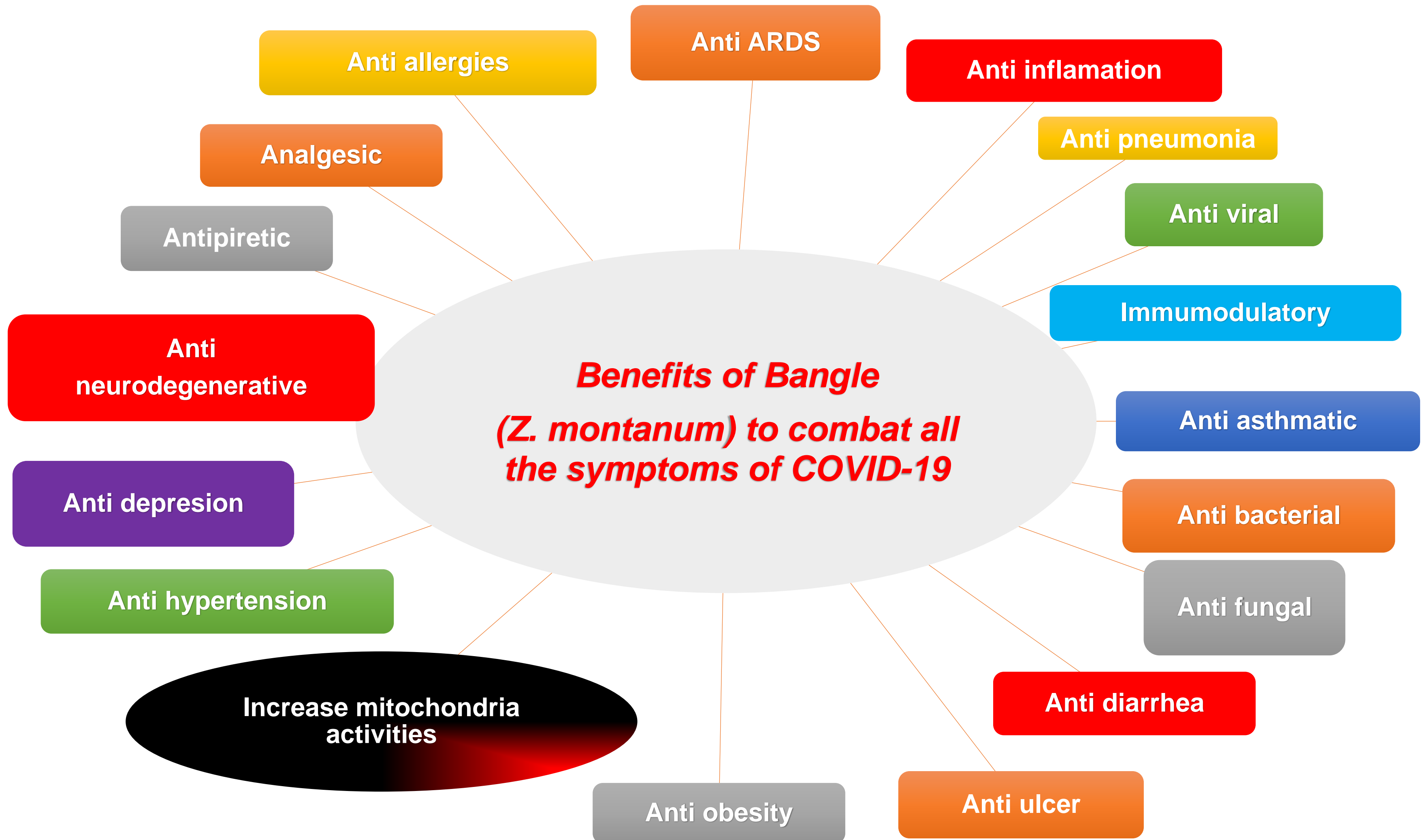


According to my research based on Study Literature Research  
The best Indonesian Herbal for combat COVID-19 is ***Zingiber montanum* (Bangle)**, because the efficacy of Bangle can combat all mild to severe symptoms of COVID-19, besides that Bangle is also efficacious as an antiviral

According to some literature  
the strength of Bangle is 3 X  
stronger than Ginger / jahe  
(*Zingiber officinale*)









# CONCLUSION

**Based on the description above, it can be concluded that drinking herbal extracts will be able to synergize with vaccines to increase antibodies to prevent Covid-19 and can also reduce the symptoms caused by Covid-19. Bangle rhizome extract is one of the herbal extracts that can increase antibodies and can fight almost all severe and mild symptoms of COVID-19**

