



# 2<sup>nd</sup> ICPU

The 2<sup>nd</sup> International Conference  
on Pharmaceutical Updates 2020

ICPU



## SCIENTIFIC COMMITTEE OF 2ND ICPU 2020

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Name	Affiliation	Country	Profile
Prof. Ted Welta Lai, Ph.D	China Medical University	Taiwan	<a href="#">Scopus</a>
Dr. Birgit C. P. Koch, PharmD Ph.D	Erasmus University Medical Center	Netherlands	<a href="#">Scopus</a>
Asst. Prof. Dr. Irna Elina Binti Ridwan, RPh, MMPS	International Islamic University Malaysia	Malaysia	<a href="#">Scopus</a>
Prof. Alan Lau, Pharm D., FCC	College of Pharmacy, University of Illinois	The United States of America	<a href="#">Scopus</a>
Prof. Dr. Arthorn Riewpalboon	Faculty of Pharmacy Mahidol Universit	Thailand	<a href="#">Scopus</a>
Dr. apt. Bangunawati Rahajeng, M.SI	Universitas Muhammadiyah Yogyakarta	Indonesia	<a href="#">Scopus</a>
apt. Hari Widada, M.Sc	Universitas Muhammadiyah Yogyakarta	Indonesia	<a href="#">Scopus</a>
apt. Ingenida Hadning, S.SI., M.Sc	Universitas Muhammadiyah Yogyakarta	Indonesia	<a href="#">Scopus</a>
apt. Rifki Febriansah, S.Farm., M.Sc	Universitas Muhammadiyah Yogyakarta	Indonesia	<a href="#">Scopus</a>
Dr. apt. Supandi, M.SI	Universitas Muhammadiyah Prof. Dr. HAMKA	Indonesia	<a href="#">Scopus</a>
Dr. apt. Siska, M.Farm	Universitas Muhammadiyah Prof. Dr. HAMKA	Indonesia	<a href="#">Scholar</a>
apt. Lusli Putri Dwita, M.SI	Universitas Muhammadiyah Prof. Dr. HAMKA	Indonesia	<a href="#">Scopus</a>
Dr. drh. Supto Yullian	Universitas Ahmad Dahlan	Indonesia	<a href="#">Scopus</a>
Dr. apt. Asmyenti Djallasrin Djallil, M.SI	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
Dr. apt. Wiranti Sri Rahayu, M.SI	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
Dr. apt. Nunuk Arles Nurullta, M.SI	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
apt. Didik Setiawan, Ph.D	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
apt. Binar Asrining Dhiani, Ph.D	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
apt. Erza Genatrika, M.Sc	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
Dr. apt. Retno Wahyuningrum, M.SI	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scopus</a>
apt. Indah Halrunisa, M. Biotech	Universitas Muhammadiyah Kalimantan Timur	Indonesia	<a href="#">Scholar</a>
Prof. apt. Dyah Aryani P	Universitas Ahmad Dahlan	Indonesia	<a href="#">Scopus</a>
Dr. apt. Dwi Utami, M.SI	Universitas Ahmad Dahlan	Indonesia	<a href="#">Scopus</a>
Dr. drh. Supto Yullian	Universitas Ahmad Dahlan	Indonesia	<a href="#">Scopus</a>
Dr. apt. Nurkhasanah, M.SI	Universitas Ahmad Dahlan	Indonesia	<a href="#">Scopus</a>
apt. Raditya Weka, M.Farm	Universitas Muhammadiyah Malang	Indonesia	<a href="#">Scholar</a>
Dr. apt. Ika Yuni Astuti, M.SI	Universitas Muhammadiyah Purwokerto	Indonesia	<a href="#">Scholar</a>



## ORGANIZING COMMITTEE

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Malaysia	Prof. Dr. Che Suraya Bt. Hj. Mohd. Zin – International Islamic University of Malaysia
Taiwan	Assoc. Prof. Hsiang-Wen (Margaret) Lin – China Medical University

### Steering Committee

UMY	Sabantli Harimurti, S.Si., M.Sc., Ph.D, Apt
	Dra. Sri Kadarinah, Apt
	Dra. Salmah Orbayinah, M.Kes., Apt

### Organizing Committee

UMY	Project Manager	Annisa Krisridwary, M.Env.Sc., Apt
	Co-Project Manager	Nurul Mazzyyah, S.Farm., M.Sc., Apt
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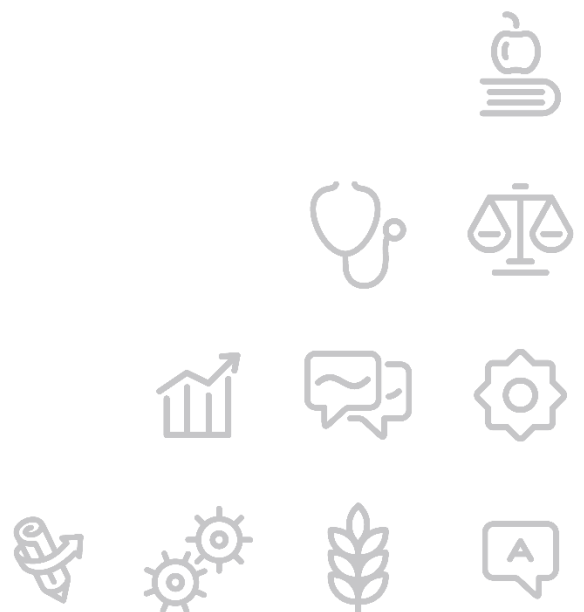


**THE 2<sup>nd</sup> INTERNATIONAL CONFERENCE ON  
PHARMACEUTICAL UPDATES (ICPU)**

**and**

**THE 2<sup>nd</sup> MUHAMMADIYAH INTERNATIONAL  
CONFERENCE ON HEALTH AND  
PHARMACEUTICAL DEVELOPMENT (MICH-PhD)**

**2020**



## Program Schedule

**The 2<sup>nd</sup> International Conference on Pharmaceutical Updates (ICPU)**  
**and**  
**The 2<sup>nd</sup> Muhammadiyah International Conference on Health and Pharmaceutical**  
**Development (MICH-PhD)**  
**Monday - Thursday, October 12 - 15, 2020**

<b>Pre-conference Workshop</b>			
Monday, October 12, 2020			
Time Western Indonesia Time / WIB (GMT+7)	Agenda	Person in Charge	Room Link
08.00 - 09.00	Preparation		
09.00 - 11.45	<b>Workshop 1 (Service Excellence)</b> Trainer 1: Drs. H. Mohammad Agus Samsudin, MM. "Service excellence"	Moderator: apt. Pramitha Esha N, M.Sc.	
	<b>Workshop 2 (How to Create and Design your E-learning Media)</b> Trainer 1 : SEAMOLEC (SEAMEO Regional Open Learning Center)	Moderator: apt. Vella Lailli D. M.Far	
13.00 - 15.30	<b>Workshop 1 (Service Excellence)</b> Trainer 2 : apt. Andy Eko Wibowo, M. Sc (School of Pharmacy, Universitas Muhammadiyah Yogyakarta) "Pharmacists Service Excellence"	Moderator: apt. Pramitha Esha N, M.Sc.	
	<b>Workshop 2 (How to Create and Design your E-learning Media)</b> Trainer 2 : SEAMOLEC (SEAMEO Regional Open Learning Center)	Moderator: apt. Vella Lailli D. M.Far	

**Day 1**

**Tuesday, October 13, 2020**

**Link: <https://media.umy.ac.id/icpu/>**

<b>Time Western Indonesia Time / WIB (GMT+7)</b>	<b>Agenda</b>	<b>Person in Charge</b>	<b>Room Link</b>
08.00 - 09.00	Preparation		
09.00 - 09.40	<ul style="list-style-type: none"> <li>● Opening</li> <li>● Reading holy Qur'an</li> <li>● Sing "Indonesia Raya" and "Mars Muhammadiyah"</li> <li>● Welcome speech from committee</li> <li>● Welcome speech from APTFM</li> <li>● Welcome speech from Dean of FKIK UMY</li> </ul>	MC: Winda&Catur	
09.40 - 10.25	Prof. Dr. Arthorn Riewpaibon "Pharmacoeconomics Analysis of Neurologic Diseases"	Moderator: apt. Nurul Maziyyah, M.Sc	
10.25 - 11.10	Dr. apt. Bangunawati Rahajeng, M.Si "Off-label of Neurological Medicines"		
11.10 - 11.40	Discussion		
12.30 - 14.30	Parallel Session		
	<ul style="list-style-type: none"> <li>● Room 1 Topic : Pharmaceutical Science 1</li> </ul>	Moderator: apt. Indah Hairunisa, M.Biotech.	
	<ul style="list-style-type: none"> <li>● Room 2 Topic : Pharmaceutical Science 2</li> </ul>	Moderator: apt. Raditya Weka, M.Farm	
	<ul style="list-style-type: none"> <li>● Room 3</li> </ul>	Moderator: Prof. Dr. apt. Nurkhasanah,	

	Topic Pharmaceutical Science 3	M.Si	
	● Room 4 Topic : Pharmaceutical Science 4	Moderator: apt. Rima Erviana, M.Sc.	
	● Room 5 Topic : Clinical Science 1	Moderator: apt. Firasti AN Sumadi, M.Biotech.	
15.00 - 17.30	Opening ICoSI		



Day 2

Wednesday, October 14, 2020

Link: <https://media.ums.ac.id/icpu/>

Time Western Indonesia Time / WIB (GMT+7)	Agenda	Person in Charge	Room Link
08.00 - 09.00	Preparation		
09.00 - 09.10	Opening MC	Moderator: apt. Sabtanti Harimurti, Ph.D	
09.10 - 10.00	Asst. Prof. Dr. Irna Elina Binti Ridzwan "Natural Products for Treatment in Neurologic Diseases"		
10.00 - 10.50	Dr. apt. Ika Yuni Astuti, M.Si "Nanoparticle in Neurological Drugs"		
10.50 - 11.30	Discussion		
12.30 - 14.30	ParallelSession		
	● Room 1 Topic : Pharmaceutical Science 5	Moderator: Dr. Drh. Sapto Yuliani, M.P	
	● Room 2 Topic : Pharmaceutical Science 6	Moderator: apt. Widyasari Putranti, M.Sc	
	● Room 3 Topic : Clinical Pharmacy 2	Moderator: apt. Dina Ratna Juwita, M.Farm.Klin	
	● Room 4 Topic : Social, Behavior and Administration	Moderator: apt. Selpina Kurniasih, M.Sc.	



**Day 3****Thursday, October 15, 2020**

<b>Time Western Indonesia Time / WIB (GMT+7)</b>	<b>Agenda</b>	<b>Person in Charge</b>	<b>Room Link</b>
08.00 - 09.00	Preparation		
09.00 - 09.50	Asst. Prof. Dr. Irna Elina Binti Ridzwan “Penggunaan Herbal Sebagai Penunjang Perawatan Kesehatan”	Moderator: apt. Pinasti Utami, M.Sc	
09.50 - 10.40	apt. Mega Octavia, M. Sc “Pemeliharaan Kesehatan Pada Lansia”		
10.40 - 11.15	Discussion		

## Parallel Session

The 2<sup>nd</sup> International Conference on Pharmaceutical Updates (ICPU)  
and  
The 2<sup>nd</sup> Muhammadiyah International Conference on Health and Pharmaceutical  
Development (MICH-PhD)  
Tuesday - Wednesday, October 13 - 14, 2020

### PARALLEL SESSION 1

Parallel Session 1 Day 1, Tuesday, October 13, 2020

Topic: Pharmaceutical Sciences 1

Room Link 1

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_N2JmMzkzYTItODg0My00MzIwLWE2NmItNjI1NDAwNjI2ODg1%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22eb29119f-fc94-4abb-82b1-18b6e72bb7ea%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_N2JmMzkzYTItODg0My00MzIwLWE2NmItNjI1NDAwNjI2ODg1%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22eb29119f-fc94-4abb-82b1-18b6e72bb7ea%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

MODERATOR : APT. INDAH HAIRUNISA, M.BIOTECH

OPERATOR : GILANG RAMADHAN

No.	Title	Author
1	In Silico Affinity Prediction Of Fab Antibody Binding Human Epidermal Growth Factor Receptor-3 (HER-3)	<b>Fitriyani</b> Universitas Muhammadiyah Purwokerto E-mail: <a href="mailto:fy.fitriyani19@gmail.com">fy.fitriyani19@gmail.com</a>
2	Cytotoxicity Of Crude Extract From Cryptosula Zavjalovenssis Against Breast Cancer Cell Line MCF7	<b>Loveille Jun A. Gonzaga</b> University of Southern Mindanao E-mail: <a href="mailto:ljpgonzaga@usm.edu.ph">ljpgonzaga@usm.edu.ph</a>
3	Antioxidant Activity And Cytotoxic Potential Of Parijoto (Medinilla Speciosa (Reinw Ex BL)) Fruit On HeLa Cell Line	<b>Aji Winanta</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:ajiwinnanta@umy.ac.id">ajiwinnanta@umy.ac.id</a>
4	Affinity Of Compounds In Hemigraphis Alternata (Burm.F.) T. Ander Leaves To Cyclooxygenase 1 (COX-1): In Silico Approach	<b>Yeni</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:yeni@uhamka.ac.id">yeni@uhamka.ac.id</a>

5	In Vitro Study Of Kaempferia Galanga L. Compound, $\delta$ -3-carene, Against 5-Lipoxygenase	<b>Lusi Putri Dwita</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:lusi_putridwita@uhamka.ac.id">lusi_putridwita@uhamka.ac.id</a>
6	Co-Chemotherapeutic Effect Of N-Hexane Fraction Of Binahong (Anredera Cordifolia (Tenore) Steen.) On Widr Human Colon Cancer Cells	Rifki Febriansah Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:rifki.febriansah@umy.ac.id">rifki.febriansah@umy.ac.id</a>
7	The Comparison Of Total Flavonoid And Antioxidant Activitiy Of Ethyl Acetate Fraction Of Moringa Seeds (Moringa Oleifera L.) And Winged Bean Seeds (Psophocarpus Tetragonolobus L.)	<b>AnnisaKrisridwany</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:akrisridwany@umy.ac.id">akrisridwany@umy.ac.id</a>
8	Xanthine Oxidase Inhibitor Activity Of Dichloromethane Fraction, Ethyl Acetate Fraction Of Ethanol Extract Of Nephelium Lappaceum L. Leaves	<b>Diniatik</b> Universitas Muhammadiyah Purwokerto E-mail: <a href="mailto:diniatik@yahoo.com.au">diniatik@yahoo.com.au</a>

Parallel Session 1 Day 1, Tuesday, October 13, 2020

Topic: Pharmaceutical Sciences 2

Room Link 2

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_ODc5MjcyNjktZjQ3Ny00OGE4LWJlYjltYzc2MzJkYjg5YTQ2%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%2239852afb-0649-41b2-a0e1-00b7ce4c1569%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_ODc5MjcyNjktZjQ3Ny00OGE4LWJlYjltYzc2MzJkYjg5YTQ2%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%2239852afb-0649-41b2-a0e1-00b7ce4c1569%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

**MODERATOR** : APT. RADITYA WEKA, M.FARM

**OPERATOR** : AMELIA NUR'AFNI MULYANTI

No.	Title	Author
1	Formulation, Evaluation Of Physical Properties, Chemical Content, Anti Cholesterols Activity From Figs Leaf Extract In Tablet Dosage Forms	<b>Muhammad Fariez Kurniawan</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:fariez@umy.ac.id">fariez@umy.ac.id</a>
2	Effect Of Glycerin As Plasticizer In Formulation Of Grape Seed Oil (Vitis Vinifera L.) Emulgel Peel-Off Mask	<b>Fith Khaira Nursal</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:fithkhaira@uhamka.ac.id">fithkhaira@uhamka.ac.id</a>
3	Peel-off Mask Soursop Leaves Extract (Annona Muricata L.) As Antioxidant	<b>Uswatun Chasanah</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:uswatun@umm.ac.id">uswatun@umm.ac.id</a>
4	Formulation And Antioxidant Effectivity Test Of Lotion Single-Bulb Garlic With DPPH Method (1,1-diphenyl-2-picrylhydrazyl)	<b>Abdul Aziz Setiawan</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:alazizsetiawan@stfm.ac">alazizsetiawan@stfm.ac</a>
5	Formulation And Antibacterial Activities Of Chewable Lozenges Celery Leaves Ethanolic Extract (Apium Graveolens L) Against Streptococcus Mutans On Dental Caries	<b>Vella Lailli Damarwati</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:vellalailli@umy.ac.id">vellalailli@umy.ac.id</a>

6	<b>Physical Characteristic Cream Of Moringa Oleifera Leaf Extract</b>	<b>Nining Sugihartini</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:nining.sugihartini@pharm.uad.ac.id">nining.sugihartini@pharm.uad.ac.id</a>
7	Formulation And Antioxidant Activity Of Serum Gel EtilAsetat Fraction From Raja Banana Skin (Musa Paradisiaca L.)	<b>Arini Syarifah</b> Universitas Muhammadiyah Purwokerto E-mail: <a href="mailto:arinisyarifah@ump.ac.id">arinisyarifah@ump.ac.id</a>

Parallel Session 1 Day 1, Tuesday, October 13, 2020

Topic: Pharmaceutical Sciences 3

Room Link 3

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_YWZlYzkWNTYtOTNjNy00ZDhiLWJiN2YtZmEzYzA5ZjdhNDE5%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22b5517d51-dee2-4baa-bd5d-a2b8d4c03225%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_YWZlYzkWNTYtOTNjNy00ZDhiLWJiN2YtZmEzYzA5ZjdhNDE5%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22b5517d51-dee2-4baa-bd5d-a2b8d4c03225%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

**MODERATOR : PROF. DR. APT. NURKHASANA, M.SI.**

**OPERATOR : LANA LABIBAH**

No.	Title	Author
1	Pb, Cd, And Cr Heavy Metal Analysis On Blush On Online Selling By Atomic Absorption Spectrophotometry Method (AAS)	<b>Diana Sylvia</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:didisylvia817@gmail.com">didisylvia817@gmail.com</a>
2	HPLC Analysis For Quantification Of Antibiotics Residues In Broiler Chicken Tissues And Organs	<b>Agustin Rafikayanti</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:rafikayanti@umm.ac.id">rafikayanti@umm.ac.id</a>
3	Determination Of Methamphetamine Levels Using Thin Layer Chromatography And UV Spectrophotometry Method In Gout Herbal Medicine	<b>Nita Rusdiana</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:nita.rusdiana270@gmail.com">nita.rusdiana270@gmail.com</a>
4	Comparison Of Antioxidant Activity With ABTS Method In Manalagi Apple Fruit (Malus Sylvestris Mill) With Their Processing Produced In Batu City	<b>Engrid Juni Atuti</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:engridjuni81@umm.ac.id">engridjuni81@umm.ac.id</a>
5	Migration Of Chromium Valence VI From Colorful Bowl And Toys Made From Plastics Analyzed Using Spectrophotometry UV - Vis Method	<b>Hurip Budi Riyanti</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:huripbudiriyanti@uhamka.ac.id">huripbudiriyanti@uhamka.ac.id</a>

6	Green Technology On The Virgin Coconut Oil Production Using Enzyme From Pineapple Waste	<b>Sabtanti Harimurti</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:sabtanti@umy.ac.id">sabtanti@umy.ac.id</a>
7	Optimization Of Gold Nanoparticles And Molecular Beacon Probe For DNA Detection By Colorimetric Method	<b>Hari Widada</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:Hr.widada@umy.ac.id">Hr.widada@umy.ac.id</a>



Parallel Session 1 Day 1, Tuesday, October 13, 2020

Topic: Pharmaceutical Sciences 4

Room Link 4

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_MzZiYjlkNjQtNzc5OS00MWIyLTllZjYtODZkMzEwOGViYjlk%40thread.v2/0?context=%7b%22id%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22oid%22%3a%229c3dfe32-38d2-48bb-8083-400ce822e21f%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_MzZiYjlkNjQtNzc5OS00MWIyLTllZjYtODZkMzEwOGViYjlk%40thread.v2/0?context=%7b%22id%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22oid%22%3a%229c3dfe32-38d2-48bb-8083-400ce822e21f%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

**MODERATOR** : APT. RIMA ERVIANA, M.SC

**OPERATOR** : RENI PRATIKA SARI

No.	Title	Author
1	Beetroots Extracts As A Hematopoietic Agent On Rats	<b>Ni Putu Ermi Hikmawanti</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:ermy0907@uhamka.ac.id">ermy0907@uhamka.ac.id</a>
2	Effects OfGotu Kola (Centella Asiatica L.) On Spatial Memory And Bcl-2 Gene Expression In The Hippocampus Of Rats Injected With Trimethyltin	<b>Sapto Yuliani</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:sapto.yuliani@pharm.uad.ac.id">sapto.yuliani@pharm.uad.ac.id</a>
3	The Effect Of Rosella Ethanol Extract (Hibiscus Sabdariffa, L.) On Vital Signs, Kidney And Liver Safety Parameters	<b>Laela Hayu Nurani</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:laela.farmasi@pharm.uad.ac.id">laela.farmasi@pharm.uad.ac.id</a>
4	Ergogenic Activities Of Some Plants Of Family Araliaceae On Mus Musculus	<b>M. Artabah Muchlisin</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:artabahmuchlisin@umm.ac.id">artabahmuchlisin@umm.ac.id</a>
5	Analgesic Activity Of Dadap Serep (Erythrina Subumbrans (Hassk.) Merr.) Leaf	<b>Saru Noliqo Rangkuti</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:noliqo.saru@gmail.com">noliqo.saru@gmail.com</a>
6	Hypoglycemic Effect Of Moringa Oleifera Aqueous Extract In Diabetic Animal Studies: A Mechanisms Review	<b>Dhigna Luthfiyani Citra</b> UPN Veteran Jakarta E-mail: <a href="mailto:dhignaluthfiyani@upnvj.ac.id">dhignaluthfiyani@upnvj.ac.id</a>

7 Analysis Of Macronutrients The  
Fermentation Of Umbi Porang  
(Amorphophallus Muelleri) With  
Bacteria Lactobacillus Bulgaricus

**Nur'aini**  
STF Muhammadiyah Tangerang  
E-mail: [nuraini.apt@stfm.ac.id](mailto:nuraini.apt@stfm.ac.id)

Parallel Session 1 Day 1, Tuesday, October 13, 2020

Topic: Clinical Science 1

Room Link 5

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_NjdmYmY1MzEtYmVjOS00ODQxLWFmNGMtM2E1OTJjYTc1ODk2%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22052eea7d-822d-452d-862e-b2609523a7f3%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_NjdmYmY1MzEtYmVjOS00ODQxLWFmNGMtM2E1OTJjYTc1ODk2%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22052eea7d-822d-452d-862e-b2609523a7f3%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

**MODERATOR : APT. FIRASTIAN SUMADI, M.BIOTECH.**

**OPERATOR : NURINA SALSABILA**

No.	Title	Author
1	Evaluation Of The Use Of Antihypertensive Agents In Hospitalized Ischemic Stroke Patients In West Nusa Tenggara Hospital, Indonesia	<b>Baiq Leny Nopitasari</b> Universitas Muhammadiyah Mataram E-mail: <a href="mailto:baiqleny.nopitasari@gmail.com">baiqleny.nopitasari@gmail.com</a>
2	Clinical Pharmacy Interventions In Preventing Risks Neuropathic Diabetics In Type 2 Diabetes Mellitus Patients At The Bandung Pharmacy	<b>Asti Yunia Rindarwati</b> Universitas Muhammadiyah Bandung E-mail: <a href="mailto:asti.rindarwati@gmail.com">asti.rindarwati@gmail.com</a>
3	Effectiveness Of Remdesivir Versus Ruxolitinib As Covid 19 Supportive Management: Systematic Review, Meta Analysis	<b>Nuriyatul Fhatonah</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:nuriyatulfhatonah0207@gmail.com">nuriyatulfhatonah0207@gmail.com</a>
4	Evaluation Of Potential Drug-Drug Interactions In Hypertriglyceridemia Patients At Teaching Hospital Surabaya	<b>Ana Khusnul Faizah</b> Universitas Hang Tuah E-mail: <a href="mailto:ana.faizah@hangtuah.ac.id">ana.faizah@hangtuah.ac.id</a>
5	Statin Utilization Among Patients With Acute Coronary Syndrome: Systematic Review	<b>Pramitha Esha Nirmala Dewi</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:pramithaesha@umy.ac.id">pramithaesha@umy.ac.id</a>

6	Quality Of Life Among Breast Cancer Patients Inpatient Unit Of X Hospital In Jakarta September-October Period 2019	<b>Daniek Viviandhari</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:daniek.viviandhari@uhamka.ac.id">daniek.viviandhari@uhamka.ac.id</a>
7	Evaluation Of Drug In Geriatric Patients With Diagnosis Of Respiratory Tract Disorders Based On STOPP Criteria 2016	<b>Indriastuti Cahyaningsih</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:ndree_chy@yahoo.com">ndree_chy@yahoo.com</a>
8	Drug Use In Systemic Lupus Erythematosus (SLE) Indonesian Outpatients	<b>Maria Caecilia N Setiawati</b> STIFAR Yayasan Farmasi Semarang E-mail: <a href="mailto:caecil_nanny@yahoo.co.id">caecil_nanny@yahoo.co.id</a>
9	The Review Of Patients' Quality Of Life With Chronic Kidney Failure	<b>Endang Sunariyanti</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:endangsunariyanti@gmail.com">endangsunariyanti@gmail.com</a>

Parallel Session 2 Day 2, Wednesday, October 14, 2020

Topic : Pharmaceutical Sciences 5

Room Link 1

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_ZTkWYmUzZDgtMDVkJi00MGZmLWFmNWQtYzRjMThjNGZiMDI3%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%2278904cb2-f128-423c-97f4-739727bfde27%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZTkWYmUzZDgtMDVkJi00MGZmLWFmNWQtYzRjMThjNGZiMDI3%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%2278904cb2-f128-423c-97f4-739727bfde27%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

MODERATOR : DR. DRH. SAPTO YULIANI

OPERATOR : GILANG RAMADHAN

No.	Title	Author
1	Antidiarrheal Secretoric Type Activity Of Ethanolic Extract Of Kedondong Leaves (SpondiasDulcis F.) In Balb/C Mice	<b>Arini Aprilliani</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:arini.aprilliani21@gmail.com">arini.aprilliani21@gmail.com</a>
2	Formulation Of Cassava Leaf (Manihot Esculenta) Extract Gel And Effectiveness Test On Burns In Rabbit (Oryctolagus Cuniculus)	<b>Zaenal Fanani</b> Universitas Muhammadiyah Kudus E-mail: <a href="mailto:zaenalfanani@umkudus.ac.id">zaenalfanani@umkudus.ac.id</a>
3	The Effect Of 96% Etanol Extract From Anting-Anting Leaf (Acalypha Indica L.) To Decrease Uric Acid Of Male White Sprague Dawley Rat (Rattus Novergicus)	<b>Sefi Megawati</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:sefi.megawati@gmail.com">sefi.megawati@gmail.com</a>
4	Ethanolic Extract Of Elephantopus Scaber Linn Effect On P53 Dan Bcl-2 Gene Expression In Rat Breast Cancer Induced By DMBA	<b>Nanik Sulistyani</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:naniksulistyani@gmail.com">naniksulistyani@gmail.com</a>
5	Thymoquinone Increased Expression Of CD4CD25Treg In SD Rats Induced Dimethylbenzanthracene (DMBA)	<b>Titiek Hidayati</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:titiek.hidayati@umy.ac.id">titiek.hidayati@umy.ac.id</a>

6	Antibacterial Screening Of Ethyl Acetate Fraction Eleutherine Palmifolia (L.) Merr Against Salmonella Typhi	Siti Rofida Universitas Muhammadiyah Malang E-mail: <a href="mailto:rofida79@umm.ac.id">rofida79@umm.ac.id</a>
7	Expression And Antimicrobial Activity Of Recombinant Heteroscorpine-1 From Scorpion <i>Heterometrus laoticus</i> Toxin	Rima Erviana Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:rima@umy.ac.id">rima@umy.ac.id</a>
8	Effect Of Antihipercolesterolemia Tablets Of Bidara Leaf Extract (ZiziphusMauritiana Lam.) In White Rat (Rattus Norvegicus)	<b>Salmah Orbayinah</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:orbayinah_salmah@umy.ac.id">orbayinah_salmah@umy.ac.id</a>

Parallel Session 2 Day 2, Wednesday, October 14, 2020

Topic : Pharmaceutical Sciences 6

Room Link 2

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_NjBINmE3ODAtYTM4Yi00NGVhLTgwN2EtOGVIYjZkNTNhNWM3%40thread.v2/0?context=%7b%22tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22oid%22%3a%22eb29119f-fc94-4abb-82b1-18b6e72bb7ea%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_NjBINmE3ODAtYTM4Yi00NGVhLTgwN2EtOGVIYjZkNTNhNWM3%40thread.v2/0?context=%7b%22tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22oid%22%3a%22eb29119f-fc94-4abb-82b1-18b6e72bb7ea%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

MODERATOR : APT. WIDYASARI PUTRANTI, M.SC

OPERATOR : LANA LABIBAH

No.	Title	Author
1	Formulation Of The Body Scrub Cream Arabica Green Coffee (Coffea Arabica L.) As Antioxidant	<b>Hilda Damayanti</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:hildadamay99@gmail.com">hildadamay99@gmail.com</a>
2	Formulation Of Aromatherapy Balm From Essential Oil Of Lemongrass Kitchen (Cymbopogon Citratus (DC.) Stapf)	<b>La Ode Akbar Rasydy</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:akbar_rasydy@yahoo.com">akbar_rasydy@yahoo.com</a>
3	Formula Optimization Of Hand Sanitizer With Lemongrass Essential Oil	<b>Dyani Primasari Sukamdi</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:dyani.primasaris@umy.ac.id">dyani.primasaris@umy.ac.id</a>
4	The Hydrogen Bond And Crystal Packing Analysis In Solubility Improvement Of Diclofenac-Proline And Mefenamic Acid-Nicotinamide Cocrystals	<b>Dwi Utami</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:dwi.utami@pharm.uad.ac.id">dwi.utami@pharm.uad.ac.id</a>
5	Optimization Virgin Coconut Oil (VCO) As Oil Base For Antifungi Ketokonazole Emulgel	<b>Dian Ermawati</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:dianerma@umm.ac.id">dianerma@umm.ac.id</a>
6	Factors Affecting Antibacterial And Antifungal Properties Of Microemulsion Gel Containing Tea Tree Oil	<b>Raditya Weka Nugraheni</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:radityawn@umm.ac">radityawn@umm.ac</a>



7	Fractination Of Ethanol Extract 96% Moringa Oleifera Leaf And Its Influence To The Total Phenolic Content And The Sun Protection Factor Value	<b>Hari Susanti</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:hari.susanti@pharm.uad.ac.id">hari.susanti@pharm.uad.ac.id</a>
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Parallel Session 2 Day 2, Wednesday, October 14, 2020

Topic : Clinical Sciences 2

Room Link 3

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_Mzk0MGZiMDItZDBmYS00MDUzLWFiYTIhYzllOTI4MzZkYTdm%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%2239852afb-0649-41b2-a0e1-00b7ce4c1569%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_Mzk0MGZiMDItZDBmYS00MDUzLWFiYTIhYzllOTI4MzZkYTdm%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%2239852afb-0649-41b2-a0e1-00b7ce4c1569%22%7d)

Time: 12.30 - 14.30 WIB/Western Indonesia Time (GMT+7)

**MODERATOR : APT. DINA RATNA JUWITA, M.FARM.KLIN**

**OPERATOR : NURINA SALSABILA**

No.	Title	Author
1	Analysis Of Drug Related Problems Among Breast Cancer Patients Inpatient Unit Of X Hospital In Jakarta September-October Period 2019	<b>Maifitrianti</b> Universitas Muhammadiyah Prof. DR. Hamka E-mail: <a href="mailto:maifitrianti@uhamka.ac.id">maifitrianti@uhamka.ac.id</a>
2	The Impact Of Smoking On The Outcome Therapy In Patients Pneumonia Infection At ParuRespira Yogyakarta Hospital	<b>Mega Octavia</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:megaoctavia@umy.ac.id">megaoctavia@umy.ac.id</a>
3	Evaluation Of The Side Effects Of Anti Tuberculosis Drugs On The Quality Of Life Of Tuberculosis Patients In RskpRespira Yogyakarta Period January-June 2019	<b>Bangunawati Rahajeng</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:bangunawati.r@umy.ac.id">bangunawati.r@umy.ac.id</a>
4	Influence Of Family Support For Antipsychotic Treatment Adherence In Schizophrenic Patients	<b>Ika Ratna Hidayati</b> Universitas Muhammadiyah Malang E-mail: <a href="mailto:hidayati@umm.ac.id">hidayati@umm.ac.id</a>
5	Combination Of Traditional Medicine And Synthesis Medicine Therapy For Hypertension And Diabetic Patients	<b>Ersi Arviana Ihsan</b> Universitas Hamzanwadi E-mail: <a href="mailto:ersiihsan@gmail.com">ersiihsan@gmail.com</a>

6	Identification Of Drug Related Problems (Drps) To The Patients Stroke Non Hemoragic At The Inpatient Installation Of District Public Hospital Tangerang In 2018	<b>Trisna Lestari</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:trisnalestari25@gmail.com">trisnalestari25@gmail.com</a>
7	Incidence Of Orthostatic Hypotension In Schizophrenic Patients Using Antipsychotics At Psychiatric Hospital	<b>Noor Cahaya</b> Universitas LambungMangkurat E-mail: <a href="mailto:noorcahaya@ulm.ac.id">noorcahaya@ulm.ac.id</a>
8	Variation Of CYP2C9 Gene And Glycemia Control In Diabetic Patients: A Literature Review	<b>Dyah A Perwitasari</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:dyah.perwitasari@pharm.uad.ac.id">dyah.perwitasari@pharm.uad.ac.id</a>
9	Prospective Study: Study Of Asthma Therapy And The Relationship Of Asthma Control Levels To The Quality Of Life Of Patients In Yogyakarta	<b>Pinasti Utami</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:pinasti.utami@umy.ac.id">pinasti.utami@umy.ac.id</a>

Parallel Session 2 Day 2, Wednesday, October 14, 2020

Topic: Social Behaviour Administration

Room Link 4

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_N2I5NDNmZTgtNGMwZi00YjJhLThkZDAtYmM2ZjQwZDYwMDEx%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22b5517d51-dee2-4baa-bd5d-a2b8d4c03225%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_N2I5NDNmZTgtNGMwZi00YjJhLThkZDAtYmM2ZjQwZDYwMDEx%40thread.v2/0?context=%7b%22Tid%22%3a%22f420743c-bb02-44dc-859e-76ef5c248baa%22%2c%22Oid%22%3a%22b5517d51-dee2-4baa-bd5d-a2b8d4c03225%22%7d)

Time: 12.30- 14.30 WIB/Western Indonesia Time (GMT+7)

**MODERATOR** : APT. SELPINA KURNIASIH, M.SC

**OPERATOR** : RENI PRATIKA SARI

No.	Title	Author
1	Analysis Of Herbal Plants Utilization To Improve Immunity Systems In Pandemic Era In Nusa Tenggara Barat Region	<b>Tri Puspita Yuliana</b> Universitas Hamzanwadi E-mail: <a href="mailto:etazeta18@gmail.com">etazeta18@gmail.com</a>
2	Analysis Of Essential Oils Utilization In Enhancing Immune Systems In The Pandemic Era	<b>Puspawan Hariadi</b> STF Hamzanwadi E-mail: <a href="mailto:puspawanhr@gmail.com">puspawanhr@gmail.com</a>
3	Pharmaceutical Storage Evaluation In Warehouse And Outlet Apotek X Bantul Yogyakarta In 2018	<b>Andy Eko Wibowo</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:andyew@umy.ac.id">andyew@umy.ac.id</a>
4	Analysis Of BPJS Patient Satisfaction Level Of Pharmaceutical Unit Care Service Unit At Balaraja IFRS	<b>Rahmawida Putri</b> STF Muhammadiyah Tangerang E-mail: <a href="mailto:rahmawidaputri0@gmail.com">rahmawidaputri0@gmail.com</a>
5	The Correlation Between Pregnant Women Knowledge Level, Perception, And Compliance With Ferrous Fumarate Tablet Consumption In A Primary Health Care Institution	<b>Ginangjar Zukhruf Saputri</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:zukhruf.alparslan@gmail.com">zukhruf.alparslan@gmail.com</a>
6	Effects Of Education Using Active Learning And FGD Methods On The DAGUSIBU Knowledge Of MA Nurul Ummah Students, Yogyakarta	<b>Susan Fitria Candradewi</b> Universitas Ahmad Dahlan E-mail: <a href="mailto:susan.candradewi@pharm.uad.ac.id">susan.candradewi@pharm.uad.ac.id</a>

7	Direct Medical Cost Analysis Of Ceftriaxone Vs Levofloxacin Therapy For Community Acquired Pneumonia Patient At The X Government Hospital In NTB	<b>Cyntiya Rahmawati</b> Universitas Muhammadiyah Mataram E-mail: <a href="mailto:cyntiya.apt@gmail.com">cyntiya.apt@gmail.com</a>
8	An Analysis Of Decrease In Productivity Of Health Workers In Indonesia During Covid-19 Pandemic	<b>Ingenida Hadning</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:ingenida.hadning@umy.ac.id">ingenida.hadning@umy.ac.id</a>
9	Developing OSCE For Pharmacy Students In The Pandemic Era	<b>Nurul Maziyyah</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:maziyyahnurul@umy.ac.id">maziyyahnurul@umy.ac.id</a>
10	Does Smartphone App Effectively Improve The Level Of Asthma Knowledge?	<b>Muhammad Thesa Ghozali</b> Universitas Muhammadiyah Yogyakarta E-mail: <a href="mailto:ghozali@umy.ac.id">ghozali@umy.ac.id</a>



Uhamka

# Affinity of Compounds in *Hemigraphis Alternata* (Burm.F.) T. Ander Leaves to Cyclooxygenase 1 (COX-1): In Silico Approach

Yeni, Rizky Arcinthy Rachmania, Mochamad Dicky Yanuar M R

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The 2<sup>nd</sup> International Conference on Pharmaceutical Updates  
(2<sup>nd</sup> ICPU)

12<sup>th</sup> – 15<sup>th</sup> October 2020



# INTRODUCTION

Inflammation is an important biological process for eradicating pathogens and maintaining tissue homeostasis.

Cyclooxygenase 1 (COX-1) is one of the pharmacological targets for anti-inflammatory drugs.

*Hemigraphis alternata* contains flavonoids which are predicted to provide anti-inflammatory effects.

There are 23 secondary metabolites that have been isolated from *Hemigraphis alternata* leaves.

In silico methods can be used to predict the drugs affect in biological systems.





# INTRODUCTION

The aim of this study was to predict the anti-inflammatory compounds in the leaves of *Hemigraphis alternata* which have a greater affinity for COX-1 than the comparator drug, aspirin through in silico study.

Therefore, **new drug candidates** can be obtained for anti-inflammatory.



# INTRODUCTION



*Hemigraphis alternata* leaves



# MATERIALS AND METHODS

- The softwares used were Protein Data Bank, Pub-Chem, Chimera version 1.13, DOCK version 6.9. and Discovery Studio Visualizer version 17.2.0.16349.
- The 3D structure of COX-1 receptor (PDB code 1eqg) was downloaded from Protein Data Bank. The 3D structure of 23 ligands and aspirin were downloaded from PubChem.



# MATERIALS AND METHODS

The validation method  
Redocking receptor  
COX-1 with its native  
ligand, ibuprofen



Molecular docking of  
ligands and the  
comparator drug,  
aspirin to COX-1



Visualization of  
docking result to know  
the interactions.



# RESULTS AND DISCUSSION

Table of Molecular Docking result of the Compounds to COX-1 Using DOCK 6.9

No	Compound	Grid Score (kcal/mol)	No	Compound	Grid Score (kcal/mol)
1	Aspirin (comparator drug)	-14.47	13	Z-2-Dodecenol	-23.18
2	15-Chloro-4-pentadecyne	-25.87	14	15-Chloro-4-pentadecyne	-24.55
3	4-(2-Methoxyphenyl)piperidine	-14.45	15	2-Methylenecholestan-3-ol	-28.16
4	Cyclobutanol	-9.84	16	L- Alanine	-13.84
5	1-Hexadecyne	-21.20	17	levodopa	-22.53
6	2-Propylmanonic acid	-19.90	18	Glycylsarcosine	-20.07
7	n-Hexadecanoic acid	-29.89	19	5-Hydroxymethylfurfural	-13.71
8	2-Hexylacrylonitrile	-15.85	20	10-Undecyn-1-ol	-20.09
9	3,7,11-Trimethyl-1,6,10-dodecatrien-3-ol	-20.66	21	2,5-Dimethyl-2,3-dihydro-5H-1,4-dioxepine	-12,.97
10	8a-Methylhexahydro-1,8(2H,5H)-naphthalenedione	-11.03	22	4-Nitro-5-hydroxy-1,2-dimethylindole	-16.82
11	Acrylonitrile $\beta$ -[3-(2,2 dimethylcyclopropyl)-2,2-dimethylcyclopropyl	-16.37	23	9,9-Dimethoxybicyclo[3.3.1]nona-2,4-dione	-14.49
12	3,7,11,15-Tetramethyl-2-hexadecen-1-ol	-33.22	24	2,7-Dioxa-tricyclo[4.4.0.0(3,8)]deca-4,9 diene	-9.31



# RESULTS AND DISCUSSION

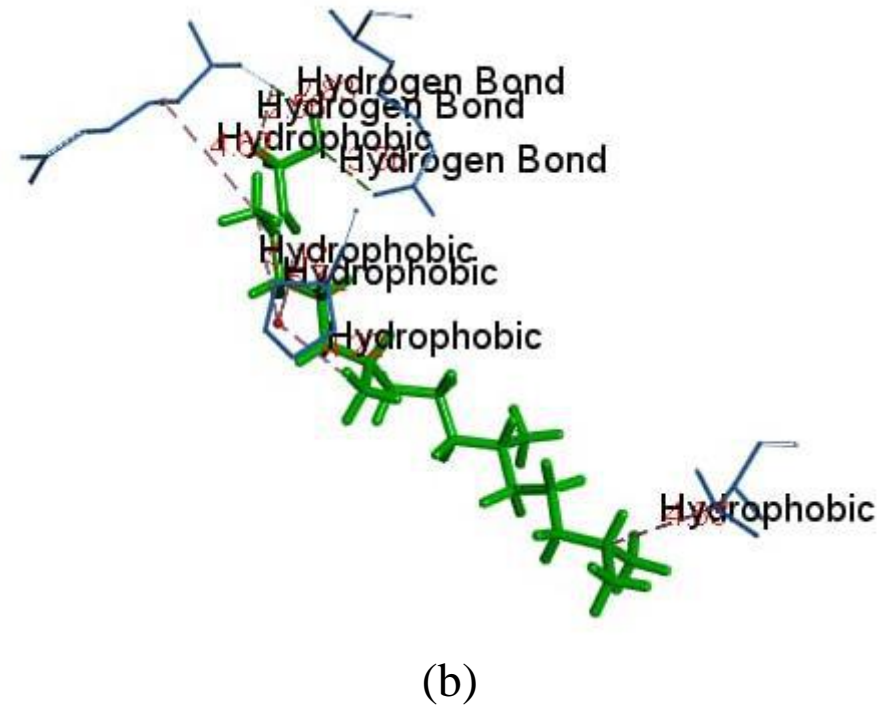
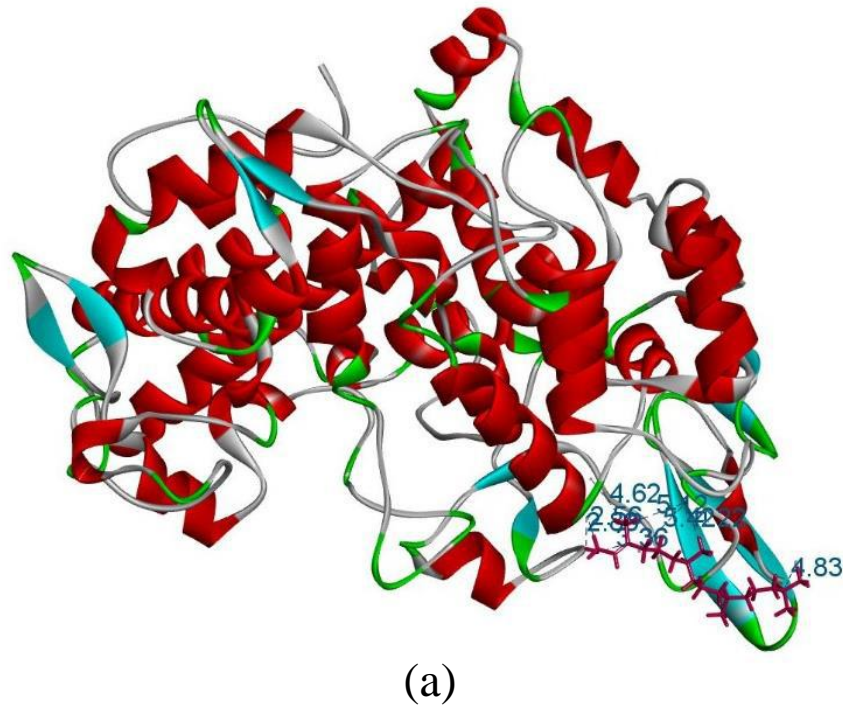


Figure of Visualization of docking result 3,7,11,15-Tetramethyl-2-hexadecen-1-ol to COX-1 using Discovery Studio Visualizer 17.2.0.16349 (a) 3D (b) 2D.



# RESULTS AND DISCUSSION

The bonds formed in 3,7,11,15-Tetramethyl-2-hexadecen-1-ol and COX-1 complex

The hydrogen bonds formed in the complex are between:

1. NH<sub>2</sub> arginine 459 receptor with O1 ligands (distance 3.36 Å)
2. H40 ligands with O arginine 456 receptor (distance 2.83 Å)
3. H39 ligands with O arginine 456 receptor (distance 2.56 Å)

The hydrophobic bonds formed in the complex are between:

1. alkyl proline 162 receptor with alkyl ligand (distance 5.42 Å)
2. C12 ligand with alkyl proline 162 receptor (distance 4.22 Å)
3. C13 ligand with alkyl valine 33 receptor (distance 4.83 Å)
4. C18 ligand with alkyl proline 162 receptor (distance 5.12 Å)
5. C18 ligand with alkyl arginine 456 receptor (distance 4.62 Å).



# CONCLUSION

The compound in *Hemigraphis alternata* leaves that has the greatest affinity for inhibiting COX-1 is 3,7,11,15-Tetramethyl-2-hexadecen-1-ol. It has a greater affinity than aspirin as a comparator drug. This shows that the leaves of *Hemigraphis alternata* contain potential active components that can be developed as anti-inflammatory drugs.





# Thank You





The 4<sup>th</sup> International Conference on  
Sustainable Innovation (ICoSI 2020)

# CERTIFICATE OF PARTICIPATION

This certificate is awarded to

*apt. Yeni, S. Farm., M. Si*

in acknowledgement of your participation as

**PRESENTER**

at The 2<sup>nd</sup> International Conference on Pharmaceutical Update (ICPU)  
held from 13<sup>th</sup> – 14<sup>th</sup> October 2020 at the Universitas Muhammadiyah  
Yogyakarta, Indonesia

**IAI ACCREDITED**

SKP.241/PP.IAI/1822/XII/2019 : Oral Participant/ Presenter 3 SKP

Rector of Universitas  
Muhammadiyah Yogyakarta



Dr. Ir. Gunawan Budiyanto, M.P., IPM

Chairperson of  
4th ICoSI 2020



Dr. Yeni Rosilawati, SIP., SE., M.M