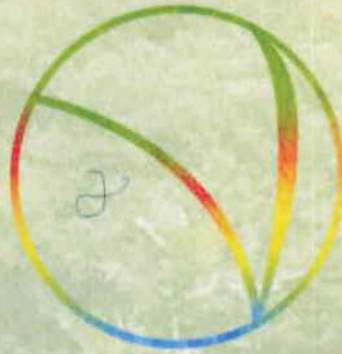


BOOK OF ABSTRACT



NRLS INTERNATIONAL CONFERENCE
ON NATURAL RESOURCES
AND LIFE SCIENCES

MANAGING NATURAL RESOURCES FOR BETTER HEALTH

and

Workshop on Comprehensive Methods for
Halal Testing and Evaluation: qPCR, LC-MSMS,
and Rapid Test Technique



FAKULTAS KEDOKTERAN
UNIVERSITAS SURABAYA



University of Surabaya (UBAYA)

**2ND INTERNATIONAL CONFERENCE ON
NATURAL RESOURCES
AND
LIFE SCIENCES
(NRLS 2018)**

Managing Natural Resources for Better Health



Co-Organized by:
Faculty of Biotechnology
Faculty of Pharmacy
Faculty of Medicine
University of Surabaya

**IBIS STYLES HOTEL
JEMURSARI, SURABAYA
AUGUST 23-24, 2018**

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Chief Organizer's Welcoming Speech

The honorable Rector of UBAYA, Deans of UBAYA Faculties and faculty members, our eminent invited speakers, sponsors, ladies and gentlemen, a very good morning to you all!

As the times progressed, Biotechnology became evolved due to its wide scope of knowledge, or more easily called multidisciplinary. Many areas of science are biotechnology work areas, such as molecular biology, biochemistry, environmental biology, genetics, forensic biology, immunology, microbiology, pharmacology, botany, food technology and much more. It cannot be denied, each of these scholars have its own peculiarities, causing some difficulty of mixing up with each other. However, the combination of these disciplines is anticipated in order to bring more benefits to the audience than if the field of science is run independently.

Disruptive era is happening today, which is marked by a change in the existing global business order. Many established businesses are eroded by many businesses that are smaller because of the nature of sharing economy. Big retail uprooted because online stores began scattered. Big hotel uprooted due to business model like hospitality rental. It also may also have an impact on large industries that utilize natural resources, such as Monsanto or other major pharmaceutical industries. The use of natural resources whose information is more opened will be more welcome than the disclosed research results. Just imagine a science like Chinese traditional medicine, functional food, the use of markers with technology that can be distributed cheaply will explode in the market. This poses a challenge for scientists deepening the biological disciplines and natural resources to contribute to the wider community through their respective fields. The biotechnology community recognizes the need to work with others, such as experts from various fields such as pharmacy and medicine, to come up with ideas for health improvement efforts that can meet the needs of society and not just the science that dwells in the ivory tower. Therefore, the ^{2nd} **International Conference on Natural Resources and Life Sciences – NRLS 2018** this time theme “**Managing Natural Resources for Better Health**”.

Coincide with it, the NRLS 2018 event also will be hosted for the **Konsorsium Biologi Indonesia (KOB) Congress-II** and **Ikatan Program Studi Bioteknologi Indonesia (IPSBI) Summit**. It is likely that this event opens doors for collaborative opportunities for research and technology development among academics and professionals. Moreover, with the involvement of invited speakers from abroad, exchanges and allegedly research ideas with global trending can also occur.

On this occasion also, I want to inform the good news for all the colleagues, that Ubaya Biotech Store (UBS) has been initiated. UBS is a service center for biotechnology services and products which is a downstream part of research in the UBAYA Faculty of Biotechnology. Some products and services are still in the development stage, but to date, the item and service list is getting ready and increasing a lot to be too wasted if it is used only in the internal faculty. Going forward, we personally hope that will be a consortium of biotechnology services and products in the future, where relevant parties can exchange ideas in the development of biotechnology products and services and fulfill their needs.

We hope you will enjoy your time with us and being encouraged for the collaborations and friendship, scientific exchange, development of joint interests and project that are of scientific and economic importance in order to explore the natural resources and life sciences and their importance in the most aspect of living, e.g. food and health, agriculture, sustainable environment and renewable energy development.

Thank you for your time and have a nice day

Surabaya, August 23, 2018,
Johan Sukweenadhi, Ph.D.

Rector's Opening Remarks

Good Morning,

The NRLS Committee, Distinguished Invited Speakers, Ladies and Gentlemen, all friends from all overseas as well as from different places in Indonesia,

It gives me great pleasure to extend to you all a very warm welcome to the University of Surabaya (UBAYA) Campus and to say how grateful we are that you have accepted our invitation to participate in this international conference held by the Faculty of Biotechnology, Faculty of Pharmacy and Faculty of Medicine UBAYA. I am so pleased to see many colleagues, professors, friends and families. We have here participants from seven countries, making our conference a global friendships celebration at once.

I would like to address my compliments to all committee and academic colleagues from UBAYA, who have been working a lot to prepare this event. Let me also address my gratitude also to industrial partners and sponsors participating in this conference. I also wish to specially welcome the representatives of biology and biotechnology related associations and express to you my deep appreciation for sharing this important moment.

After the implementation of 1st NRLS 2016 two years ago, this time the Faculty of Biotechnology works together with Faculty of Pharmacy and Faculty of Medicine, University of Surabaya in the implementation of second edition NRLS 2018. It is a great pleasure to me, knowing that three different faculties of Ubaya, can do such a wonderful collaboration to organize this scientific event beneficial to all parties. For your information, it is not the first time these three faculties work to collaborate with each other. Recently, at July 18th 2018, we inaugurated the new Laboratory named Kalbe Ubaya Hanbang-Bio Laboratory (abbreviated as KUH Laboratory), which was a collaboration project with the Industry. I hope the committee will have the opportunity to please you all taking a short visit to the KHU Lab at UBAYA Campus. All these events are actually part of our programs in celebrating the **UBAYA 50Years Anniversary** in 2018.

I have been informed that the theme of the today conference is “**Managing Natural Resource for Better Health**”. To my understanding, this is then the Conference where you can meet colleagues not only from your own specialty area, but you can also build connection to many colleagues from other fields for the sake of complementing each other towards a better scientific and technological achievements and applications in the area of Natural Resources and Life Sciences.

I hope this conference provides you with a forum to exchange scientific ideas, inspire new research, and new contacts for closer co-operation, so that we can, together, envisage the future of a promising development of Natural Resources and Life Sciences to human's benefits. Please carry also with you the best wishes of UBAYA for a productive and successful conference, and a pleasant stay amongst you in Surabaya.

Finally, on behalf of UBAYA, I am very proud to declare that the 2018 International Conference NRLS-2018 is officially opened. Thank you.

Surabaya, August 23, 2018,

Prof. Ir. Joniarto Parung, MMBAT, Ph.D.

NRLS 2018 Commitee

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- Akhmad Subhkan, S.Tp.
- Fitria Setya Megawati, S.Si.
- Ayu Mayzuhroh, S.TP.

PROGRAM SCHEDULE

DAY I Thursday, August 23, 2018

Plenary Session		
07.30-08.00	Registration	
08.00-08.15	Traditional Dance	UBAYA Dance Team
	Opening	MC
	Singing: Indonesia National Anthem	Biotechnology student
08.15-08.40	Welcome speech I	Rector
	Welcome speech II	Chief Organizer(s)
	Opening ceremony (gong)	
Keynotes Session I		Moderator:
		Dr. rer. nat. Sulistyو Emantoko
08.40-09.15	Revisiting the capacity of Indonesia's Higher Education in response to environment, energy and sustainability challenges	Prof. Intan Ahmad
09.15-09.50	Solution to Discovery Metabolomics: High Resolution Mass Spectrometry with Powerful Data Analysis Software	Erhan Simsek, Ph.D.
09.50-10.05	Discussion	Moderator:
		Dr. rer. nat. Sulistyو Emantoko
10.05-10.20	Coffee break I	
Keynotes Session II		Moderator:
		IBM Artadana, M.Sc.
10.20-10.55	Genetic interference and modified environments affected on growth and terpenoid variations of <i>Artemisia annua</i> L.	Assoc. Prof. Dr. Kanyaratt Supaibulwatana
10.55-11.30	Role of Nanoparticles of Polymer-drug Conjugate for Effective Drug Delivery	Prof. Dr. Varaporn Junyaprasert
11.30-11.45	Discussion	Moderator:
		IBM Artadana, M.Sc.
11.45-12.00	Sponsor presentation I	Sciencewerke
12.00-13.00	Lunch + Poster Session	
Parallel Session		
13.00-14.00	Parallel session I	
14.00-14.15	Coffee break II	
14.15-15.15	Parallel session II	

DAY II Friday, August 24, 2018

Plenary Session		
07.30-08.00	Registration	
08.00-08.05	Opening	MC
08.05-08.20	Traditional Dance	Pharmacy students
Keynotes Session I		Moderator:
		Dr. Mariana Wahjudi
08.20-08.55	(Title)	Prof. Dr. Jagat R. Kanwar
08.55-09.30	The pro-apoptotic effect of curcumin nanoemulsion versus curcumin solution in MCF-7 and MDA-MD cells <i>in vitro</i>	Assoc. Prof. Dr. Heni Rachmawati
09.30-09.45	Discussion	Moderator:
		Dr. Mariana Wahjudi
09.45-10.00	Coffee break I	
10.00-10.10	Welcome speech	Vice Rector
10.10-10.20	MoU Signing between UBAYA and other Biology/ Biotechnology Associations	
Keynotes Session II		Moderator:
		Dr. Dra. R.R. Christina Avanti, M.Si., Apt.
10.20-10.55	Recent Advances in Nanotechnology-based Vaccines	Dr. Fazren Azmi
10.55-11.30	Placental Global and Specific DNA Methylation: A Mirror of Pregnancy and Birth Outcome Quality	Dr. rer. nat. Sulistyono Emantoko
11.30-11.45	Discussion	Moderator:
		Dr. Dra. R.R. Christina Avanti, M.Si., Apt.
11.45-12.00	Sponsor presentation II	Biotech Prima Indoplus
12.00-13.00	Lunch + Poster Session	
Parallel Session		
13.00-14.00	Parallel Session I	
Keynotes Session III		Moderator:
		Dr. Dra. R.R. Christina Avanti, M.Si., Apt.
14.00-14.35	Implementation of pharmacogenetics in clinical practice	Prof. Dr. Bob Willfert
14.35-14.45	Discussion	Moderator:
		Dr. Dra. R.R. Christina Avanti, M.Si., Apt.
14.45-15.00	Coffee break II	
Parallel Session		
15.00-16.00	Parallel session II	
15.00-16.15	Announcement of Best Poster and Best Oral Presenter	MC
16.15-16.30	Closing	MC

ORAL PRESENTATION SESSION

DAY I Thursday, August 23, 2018

• **MEDICAL AND FORENSICS – BR LINE ROOM (OP-A-1 to OP-A-6)**

CODE	TITLE	PRESENTER	MODERATOR
OP-A-1	Quantification of Expression of Glucocorticoid Receptor of the Offspring of <i>Mus musculus</i> BALB/c of Stressed Parents: Folic Acid Intervention Study	Shintya Tanggara	Mariana Wahyudi
OP-A-2	Understanding the Current Event of Tuberculosis in Indonesia : Challenges and Opportunities	Risma Ikawaty	
OP-A-3	Anticancer Potential from Ethanol Extract of <i>Zanthoxylum acanthopodium</i> Seed to Against MCF-7 Cell Line	Emilia Vivi Arsita	
DISCUSSION			
COFFEE BREAK			
OP-A-4	Biological Screening of Leaf and Fruit Extract (<i>Ficus carica</i> L) using Brine Shrimp Lethality Test (BSLT) Toxicity Bioassay on <i>Artemia salina</i> Leach Larvae	Risa Purnamasari	Sulistyo Emantoko
OP-A-5	Designing of a Less-Immunogenic Nattokinase from <i>Bacillus subtilis</i> subsp. natto: A Computational Mutagenesis	Yoanes Maria Vianney	
OP-A-6	Alpha Mangostin Effect on MDA Level and The Pancreatic Morphology <i>Rattus norvegicus</i> Induced Alloxan	Devyana Dyah Wulandari	
DISCUSSION			

• **AGRICULTURE – BR STRIPES ROOM (OP-B-1 to OP-B-10)**

CODE	TITLE	PRESENTER	MODERATOR
OP-B-1	Plant Regeneration Through Somatic Embryogenesis from Callus of <i>Vanda tricolor</i> Lindl. var. <i>pallid</i>	Popy Hartatie Hardjo	Johan Sukweenadhi
OP-B-2	Influence of Types and Concentration of Natural Pesticides to Mortality of Red Mite (<i>Panonychus citri</i> McGregor)	Dyah Roeswitawati	
OP-B-3	Effect of Salinity on Biomass Allocation and Whole Plant Mass of Rice (<i>Oryza sativa</i> L.) Related to Growth at Panicle Initiation and Heading Stages	Niki Habibi	
OP-B-4	Study of <i>Ccs</i> and <i>pAMT</i> Gene of Genotype 1 Cayenne Pepper (<i>Capsicum frutescens</i> L.) Original Type and Mutant	Nur Rahmattullah	
OP-B-5	Menthol from Stem and Leaf <i>in vitro</i> <i>Mentha piperita</i>	Bintang Kerta Wijaya	
DISCUSSION			
COFFEE BREAK			
OP-B-6	Analysis of Abscissic Acid, Salicylic Acid and GABA in Several Oil Palm Progenies in Drought Stress	Susy Saadah	Popy Hartatie Hardjo
OP-B-7	Uptake of Macro Nutrients and Growth of Mahang plants (<i>Macaranga gigantea</i>)	Dwi Susanto	
OP-B-8	The Evaluation of Breeding Value and Most Probable Producing Ability for the Basis Selection of Ettawa Croosbred Goat at Malang Region, East Java, Indonesia	Aris Winaya	
OP-B-9	<i>In Vitro</i> Multiplication Of Fig (<i>Ficus carica</i> L.) for Commercially Industry	Ivon Grace Paulin	
OP-B-10	Mild Alkaline Pretreatment on Sugarcane Bagasse: Effects of Time and Lime Ratio to Dry Bagasse	Lieke Riadi	
DISCUSSION			

• **FOOD AND NUTRITION – BR CURVE ROOM (OP-D-1 to OP-D-10)**

CODE	TITLE	PRESENTER	MODERATOR
OP-D-1	Effect of Phosphoric Acid Pretreatment on Characterization of Gelatin from Broiler Chicken Bones	Dewi Yuliani	Sulistyo Emantoko
OP-D-2	Molecular Characterization of Potentially Probiotic Bacterium Isolate from Mackerel Fish (<i>Rastrelliger</i> sp.)	Yulia Sari Ismail	
OP-D-3	Profilling Of Shrimp Shell Hydrolysis Product By Chitinase From <i>Bacillus licheniformis</i> B2	Maria Goretti	
OP-D-4	Production, Purification and Characterization of Chitinase from <i>Bacillus licheniformis</i> D11	Adelia Angelin Anastasia	
OP-D-5	Purification and Characterization Of Chitinase from <i>Paenibacillus</i> sp.	Maria Fidelia Susanto	
DISCUSSION			
COFFEE BREAK			
			Ardhia Deasy R.D.
OP-D-6	Rapid Reversed-Phase High Performance Liquid Chromatography Assay of tert-Butylhydroquinone content in Food Products	Steven Sutanto	
OP-D-7	Characterization of Thermostable Chitinase from <i>Bacillus licheniformis</i> B2	Nalista Jayanthi	
OP-D-8	The Isolation and Screening of Proteolytic Bacteria from Sidoarjo Shrimp Paste as Protease Source to Extract the Collagen Protein of Milkfish Scales	Evi Susanti	
OP-D-9	A New Specific Primer for Detection of Pig genome by Quantitative Polymerase Chain Reaction	Mariana Wahjudi	
OP-D-10	The Method of Growing Tubular <i>Acetobacter xylinum</i> on the Solid Media as Precursor of Sausage Casing	Salafudin	
DISCUSSION			

DAY II Friday, 24 August 2018**• MEDICAL AND FORENSICS – BR STRIPES ROOM (OP-A-7 to OP-A-14)**

CODE	TITLE	PRESENTER	MODERATOR
OP-A-7	<i>In Vivo</i> Efficiency of Collagen Extract from Sangkuriang Catfish (<i>Clarias gariepinus</i> var. Sangkuriang) Skin on MDA Levels and Macrophages Total in Burn Wound Healing	Andini Ary	Mariana Wahyudi
OP-A-8	The Effect Of Folic Acid Supplementation In Parental Stress Mouse Toward <i>NR3C1</i> Expression Alteration In The Offspring	Patricia	
OP-A-9	<i>In Silico</i> Mutagenesis: Decreasing the Immunogenicity of <i>Botulinum toxin</i> Type A	Stanley Evander Emeltan Tjoa	
OP-A-10	Comparison of food intake containing vitamin D with BMI of Geriatric patients in Sidoarjo, East Java	Rivan Virlando Suryadinata	
DISCUSSION			
COFFEE BREAK			
OP-A-11	Influence of Folic Acid Diet on Maternal Stress to Offspring Stress Level and <i>NR3C1</i> Expression	Natanya	Sulistyo Emantoko
OP-A-12	Facile Green Synthesis of Silver Nanoparticles from Ethanol Extract of <i>Plantago major</i> L. and its antibacterial activity	Sukweenadhi Johan	
OP-A-13	<i>In Vitro</i> Evaluation of Chitosan-DNA Plasmid Complex Encoding Jembrana Disease Virus Tat Protein as a Vaccine Candidate	Asmarani Kusumawati	
OP-A-14	The Relationship between Asthma Control - Methylxanthine used and <i>cyp1a2*1f</i> Gene Polymorphisms	Mariana Wahjudi	
DISCUSSION			

• **ENVIRONMENT & ENERGY(1) – BR CURVE ROOM (OP-C-1 to OP-C-6)**

CODE	TITLE	PRESENTER	MODERATOR
OP-C-1	Utilization Cytochrome B Gene for Phylogeny Analysis of <i>Cuora amboinensis</i> to Prevent Extinction: Preliminary Study	Dwi Martha Nur Aditya	Mangihot Tua Goeltom
OP-C-2	Profile of Antibiotic Compounds from <i>Trichoderma harzianum</i> Controlling <i>Aspergillus flavus</i> on Bali Lontar	IBG Darmayasa	
OP-C-3	Plasmid Curing Analysis of Chromate Reducing Bacteria Isolated from Serpentine Soil	Badruzsaufari	
DISCUSSION			Finna
COFFEE BREAK			
OP-C-4	Effect of Cycle Time on Biokinetics Parameters in Tapioca Wastewater Treatment using Sequencing Batch Reactor	Happy Mulyani	
OP-C-5	The Utilization of Tofu Waste for the Cultivation of Spirulina for Biomass Production	Yalun Arifin	
OP-C-6	Thermostable Chitinase-Producing Bacterium from Ijen Hot Spring – Indonesia: Isolation, Identification and Characterization	Ruth Chrisnasari	
DISCUSSION			

POSTER SESSION SCHEDULE

Thursday – Friday, 23 – 24 August 2018

Prefunction Area

MEDICAL AND FORENSICS (PP-A-1 to PP-A-4)

CODE	TITLE	PRESENTER
PP-A-1	Antibacterial Activity Roll on Deodorant With <i>Pluchea indica</i> (L.) Leaf Extract Against <i>Staphylococcus epidermidis</i> in-Vitro	Oom Komala
PP-A-2	Formulation of <i>Padina australis</i> Extract Tablet as Antibacterial <i>Escherichia coli</i>	Tri Saptari Haryani
PP-A-3	The Potential of Pacitan Orange (<i>Citrus sinensis</i>) Peel Extract as a Stimulus of Regeneration Cells in <i>Rattus norvegicus</i> Burns	Rinza Rahmawati Samsudin
PP-A-4	Characterization and Antibacterial Activity Test of Symbiont Sponge Bacteria Against Pathogenic Bacteria	Endang

AGRICULTURE (PP-B-1 to PP-B-5)

CODE	TITLE	PRESENTER
PP-B-1	Genetic Variability of Soybean Genotypes for Pod Shattering Resistance using Oven Methods	Ayda Krisnawati
PP-B-2	Characterization of Adaptive and Productive Soybean Genotypes in Dry Land of Kalimantan, Indonesia	M Muchlish Adie
PP-B-3	The Performance of Three Local Rice (<i>Oryza sativa</i>) Cultivar from East Kalimantan under Osmotic Stress at Early Seedling Stage	Ida Bagus Made Artadana
PP-B-4	Production Potential of Sweet Corn (<i>Zea mays</i> Linn. Var. 17accharate) to Different Planting Pattern and P Sources	P G Adi Nurani
PP-B-5	Local Variety of "Uwi" (<i>Dioscorea alata</i> Linn.) Plant in West Region of East Java Upland	Wuryanto

ENVIRONMENT & ENERGY (PP-C-1 to PP-C-7)

CODE	TITLE	PRESENTER
PP-C-1	Phytotoxicity and Developmental Effect of CASHEW Nut Shell Extract against Nymphal Instar of Whitefly (<i>Bemisia tabaci</i> Genn.)	Wuye Ria Andayanie
PP-C-2	Applying Species Distribution Models to Identify the Conservation Area by Area Habitat Suitability: A case study using <i>Zanthoxylum acanthopodium</i> DC.	Cicik Suriani
PP-C-3	An Engineering of Floating Net Aquaculture System of Tiger Grouper [<i>Ephinephelus fuscoguttatus</i> (Forsskal, 1775)] on supplementation <i>Bacillus subtilis</i> (Ehrenberg, 1835) Probiotic in the Diet	D Rachmawati
PP-C-4	Performance UNEJ #1 Stove Low Energy using Bio-pellet from Coffee Husk	S S Harsono
PP-C-5	Fish Diversity in Cimanuk River Before and After Rainy Season in Jatigede reservoir, West Java, Indonesia	T Herawati
PP-C-6	The Fe Non-heme Prospect in Coffee Flour made from Coffee Solid Waste: Mini review	RHSetiabudi
PP-C-7	Does the utilization of waste as the green energy alternative economically feasible?	N Syaifudin

FOOD AND NUTRITION (PP-D-1 to PP-D-10)

CODE	TITLE	PRESENTER
PP-D-1	Preparation and Characterization of Butterfly Pea Color Extract Encapsulated with Various Coating Agents	Hana Susanti Maleta
PP-D-2	Photodynamic Inactivation of <i>Escherichia coli</i> by the Crude Pigments Extract of Various Tea Dregs	Renny Indrawati
PP-D-3	The Function of Ethanolic Extract <i>Plectranthus amboinicus</i> Lour Spreng as Preventive and Curative Against The Effects of Rhodamine B in Rats	Melva Silitonga
PP-D-4	Potency of Vegetable Oil to Increase Microflora Health Using <i>In Vitro</i> and <i>In Vivo</i> Evaluation	Nurhayati

University of Surabaya (UBAYA)

PP-D-5	Quality and Consumer Acceptance Improvement on Prime Local Soy Milk (<i>Glycinemax</i> (L) Merrill) Varieties	Elfi Anis Saati
PP-D-6	The Utilization of Telang Flower as Healthy-Natural Food Coloring on Dawet Drink	Elfi Anis Saati
PP-D-7	Artificial Rice as an Alternative Functional Food to Support Food Diversification Program	Erica Valencia
PP-D-8	Critical Aspects to Produce Low-Cost Protein Molecular Weight Marker	Leonardo Tejo Gunawan
PP-D-9	Potency healthy <i>Moringaoleifera</i> (Lamk) leaf flour as home-agroindustry in rural area of Eastren East Java - Indonesia	S.S Harsono
PP-D-10	Quality of Milk Pasteurization of Ginger in Cold Storage	KK Khotimah

OP-A-10
Comparison of Food Intake Containing Vitamin D with BMI of
Geriatric Patients in Sidoarjo, East Java

Rivan Virlando Suryadinata*, Sajuni Wijaya, Risma Ikawaty

Medical Faculty of Surabaya University

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Abstract

Previous studies showed relationship of vitamin D deficiency with obesity. This study was based on observation of food intake containing vitamin D with BMI geriatric patients in Sidoarjo, East Java. We used case control design with semi-quantitative questionnaire. Eightythree obese geriatric patients and 83 non-obese geriatric patients (4.82% thin, 84.34% normal, and 10.84% at risk) were observed. Sampling technique was random sampling (non-probability sampling) with purposive sampling method and tested by using Chi square. From the obese group we found 76 patients had vitamin D deficiency and 7 patients had enough vitamin D supplementation, while in the non-obese group, 80 patients had deficiency of vitamin D intake, and 3 patients had enough vitamin D ($p = 0,192$ ($p > 0,05$)). Thus we concluded, there was no significant difference of food intake containing vitamin D on both group, obese and non-obese geriatric patients.

Keywords: Vitamin D, geriatric, obesity

FACULTY OF BIOTECHNOLOGY UBAYA :
SECRETARIAT: FG BUILDING 2ND FLOOR - FACULTY OF BIOTECHNOLOGY
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