



## PROGRAMS & ABSTRACTS

International seminar

# Global Strategy to Combat Emerging Infectious Diseases in Borderless Era

## GSEID 2016

Surabaya, 8-9 August 2016



- organized by -

Faculty of Medicine and Institute of Tropical Disease  
Universitas Airlangga







# CERTIFICATE



This is to certify that

**Dr. Sri Hidanah, Ir., MS.**

has successfully completed

## **INTERNATIONAL SEMINAR**

**The Global Strategy to Combat Emerging Infectious Diseases**

as

## **POSTER PARTICIPANT**

Surabaya, August 8<sup>th</sup> - 9<sup>th</sup> 2016

IDI Accreditation

No : 363/PKB/IDI-WJ/2016

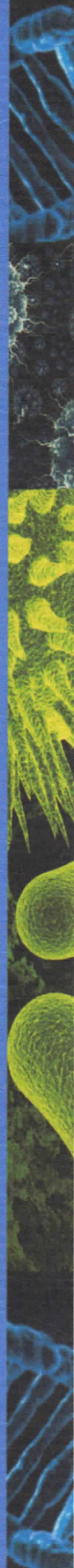
Participant 10 SKP, Moderator 2 SKP, Speaker 8 SKP, Committee 1 SKP

**Director of Institute of Tropical Disease**

**Prof. Maria Inge Lusida, dr., Ph.D., Sp.MK(K)**

**Dean of Faculty of Medicine**

**Prof. Dr. Soetoyo, dr., Sp.U(K)**







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## Foreword by the Chairman



Your Excellency, Distinguished Guests, Ladies and Gentlemen,

On behalf of the organizing committee, I am deeply grateful to welcome all the participants to the "International Seminar on Global Strategy to Combat Emerging Infectious Diseases in Borderless Era (GSEID 2016)."

GSEID 2016 is organized in a warm collaboration between Faculty of Medicine and Institute of Tropical Disease, Universitas Airlangga. The major subjects covered in this seminar are antimicrobial resistance, carbapenem

resistance Enterobacteriaceae, tuberculosis vaccine and multidrug resistant TB, human genomic aspects in infectious diseases, vectorborne diseases, public health services, viral disease in tropic region, molecular diagnostics, and epidemiology. However, several subjects related to the infectious diseases are also discussed. This conference includes plenary and panel sessions with invited speakers as well as symposia, oral and poster presentations. We will discuss those subjects with leading experts invited from several countries, including Japan, the United States of America, and the Netherlands, as well as from Indonesia. Furthermore, the seminar is also intended to facilitate intensive scientific communication among medical doctors, clinicians, infectious disease specialists, researchers, public health professionals, students, and all other health practitioners. We hope GSEID 2016 will provide a valuable contribution to our knowledge and expertise.

In this joyful moment we wish to convey our sincere appreciation to dr. H. Mohamad Subuh, MPPM (the Dirjen P2P, Kementerian Kesehatan RI) for his willingness to be a keynote speaker in GSEID 2016. Moreover, we would like to express our sincere gratitude to Dr. Ir. Patdono Suwignjo, M.Eng.Sc (the Dirjen Kelembagaan IPTEK DIKTI), Prof. Dr. Mohammad Nasih (the Rector of Universitas Airlangga), Prof. Dr. Soetojo, Sp.U (the Dean of Faculty of Medicine, Universitas Airlangga), and Prof. Dr. Maria Inge Lusida (the Director of Institute of Tropical Disease, Universitas Airlangga) who facilitate this seminar to proceed smoothly. Besides, we also would like to express our deep appreciation to all invited speakers. To all participants, especially for those who registered their abstract, we also thank to all of you.

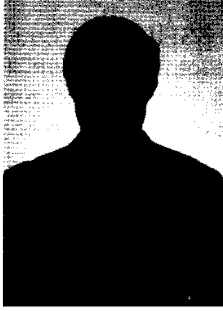
Once again, thank you all for being supportive, thank for coming and accept our invitation. To all participants, have a nice seminar.

Sincerely yours,

**Dr. Soedarsono, dr., Sp.P (K)**

The Chairman of GSEID 2016

## **Foreword by the Dean of Faculty of Medicine Universitas Airlangga**



We really appreciate to the international seminar activity of academic staffs with a topic Global Strategy to Combat Emerging Infectious Diseases (GSEID 2016) in borderless era, a key scientific discussion point related to the need to monitor science and technology in progress towards.

Science meeting develop a system that would request all academic staffs to report essential information on tropical diseases, case finding, treatment outcomes, and cure rate etc., so that progress could be monitored and discussed.

In line with Universitas Airlangga vision is excellent with morality, international seminar is one of the excellent academic activities; which conduct publication of research and education products, expert sharing to achieve the goal in implementing the community services for a better life.

We are now entering the era of the Sustainable Development Goals, in which are expected in all sectors, including health. TB is an infectious disease that, despite all progress, claims a number of deaths paralleled only by those from HIV/ AIDS. To end the epidemic (defined as an incidence of fewer than 100 cases per million people) by 2035 will require a rapid upgrade of care and managerial standards. From 2016, the goal is to end the global TB epidemic by implementing the End TB Strategy.

Deteriorated and the rising cases of TB and multiple drug resistance in Indonesia are related to co-morbid HIV, diabetes mellitus, malaria, and gastroenteritis which lead to increasing of morbidity, mortality, and prevalence. Gastroenteritis has also become main priority health problem in countries with densely populated, such as Indonesia, India, and Africa.

The problem of drug resistance emerging in all over the world complicates the treatment of infectious diseases and become health problems that must be overcome immediately. Concern on drug resistance issues should be improved because the increasing of drug resistance cases, MDR, XDR, and XXDR, can enhance the mortality, infection, and also affecting the cost burden.

The experts have discuss science and technology in the infectious agent, pathogenesis, emergence of drug resistance, vaccine development, genomic aspects of infectious diseases as well as the management of infectious diseases in both of hospital and Primary Health Care, and exchange scientific information on research in the treatment and prevention of infectious diseases; increasing research collaboration with various partners, marketing of evidence base product as a recommendation for government policies, and diagnostic product candidate, therapy, promotion and prevention for the community.

We thanks to the participants, academicians; researchers; undergraduate students, Magister and Doctoral students; practitioners and regional authority; and keynote speakers from academic scientists national and international, Universitas Airlangga, Universitas Indonesia, Kobe University Japan, Tokyo University Japan, National Institute of Infectious Diseases Japan; Iowa University USA; Erasmus University The Netherlands; Dirjen P2P Kementerian Kesehatan RI.

We sincerely hope the successful of international seminar GSEID 2016 could be a motivation to academic staffs which impact in the strengthening scientific culture, excellent behavior in research; habitual with good coordination and communication, along with active publication continuously for improving education and implementation in community services. On the other hand this seminar strengthening dedication of innovation in the basic recommendation of the strategy to control infectious diseases.

Surabaya, 8 August 2016

**Prof. Dr. Soetojo, dr., Sp.U(K)**  
Dean of Faculty of Medicine Universitas Airlangga

## Frequently Asked Questions

- Q : Is there any identifier for each presentation?  
 A : Yes, we have generated a simple unique code to identify your presentation, e.g. OP-01, OP-02, PP-01, PP-02, etc. Please find yours in the **List of Oral Presenters** and the **List of Poster Presenters** documents.
- Q : Are there schedules for GSEID 2016?  
 A : Yes, the schedules are in the Seminar Schedule, the Oral Presentation Schedule, and the Poster Presentation Schedule documents.
- Q : Is it possible to change my presentation schedule?  
 A : Unfortunately, it is NOT possible to change your presentation schedule. We will persist on the arranged schedule.
- Q : Even if with a colleague of mine?  
 A : Yes, please do NOT do that. We apologize for this inconvenience.
- Q : Regarding to my oral presentation, is there any guideline?  
 A : Yes, it is in the **Instructions for Oral Presentations** document. Please do NOT forget to put your presentation code at the first slide of your Power Point.
- Q : Is there any guideline for preparing my poster?  
 A : Yes, it is in the **Instructions for Poster Presentations** document.
- Q : Is there any guideline for preparing my full manuscript?  
 A : Yes, there is a guideline for full manuscript. Please refer to African Journal of Infectious Diseases (AJID) and send your full manuscript to us no later than 31 October 2016. Any failure to meet these requirements may result in the cancellation to publish your manuscript (see below).
- Q : Will you publish a proceeding?  
 A : No, we will review your manuscript presented both with oral and poster presentations. If the reviewers/editors approve your manuscript, it will be published in AJID with a submission fee of USD 20 and a publication fee of USD 300. Otherwise, we will publish your manuscript in Indonesian Journal of Tropical and Infectious Disease. If you prefer not to publish your manuscript, it is also possible.



Q : Will there be winners for presentations?

A : Yes. We classify presentations in GSEID 2016 as Oral and Poster Presentations There will be THREE best presenters for each type. The judging criteria are in the Judging Criteria for Oral Presentation and the Judging Criteria for Poster Presentation documents. The winners will be awarded with a certificate, souvenir, and some compensation. Please remain in the seminar until the program ends for winners' announcement. If the announced winners are not present during the announcement, the award will be shifted to the second best presenter (and so on) from the same category. The decisions of the judges are FINAL.

Q : Will you provide a seminar certificate?

A : Yes, we will publish a seminar certificate for all participants. Please CHECK carefully your name in the **List of All Participants** document, since the name (without any title) will also appear on your seminar certificate. If there is any typographical error, please notify us by e-mail immediately (no later than 7 August 2016).

**List of Oral Presenters  
(sorted by their name)**

<b>Name</b>	<b>Presentation Code</b>	<b>Session*)</b>	<b>Room</b>
Abdurachman	OP-25	III	International Class
Andrew William Tulle	OP-16	II	Aula Gramik
Arista Suci Andini S.Si	OP-19	III	International Class
Aryati	OP-12	II	Aula Gramik
Che Ismail Che Noh	OP-26	IV	Aula FK
Dadik Raharjo	OP-21	III	International Class
Dedy Wahyuddin	OP-17	II	Aula Gramik
Dewi Suryani	OP-32	IV	Aula FK
Dharin Serebrina Arfiputri	OP-08	I	Aula FK
Dinar Adriaty	OP-04	I	Aula FK
Dwi Wahyu Indriati	OP-13	II	Aula Gramik
E.Djoko Poetranto	OP-11	II	Aula Gramik
Endang Suprihati	OP-07	I	Aula FK
Ernie Maduratna Setiawati.	OP-06	I	Aula FK
Fadhilah Mega Indriati	OP-18	II	Aula Gramik
Jusak Nugraha	OP-01	I	Aula FK
Kazufumi Shimizu	OP-10	II	Aula Gramik
Kurnia Dwi Artanti	OP-02	I	Aula FK
Laura Navika Yamani	OP-15	II	Aula Gramik
Leonardo Alfonsius Paulus Lalenoh	OP-03	I	Aula FK
Lucia Tri Suwanti	OP-27	IV	Aula FK
Nina Difla Muflikhah	OP-28	IV	Aula FK
Oedojo Soedirham	OP-09	I	Aula FK
Priyo Budi Purwono	OP-20	III	International Class
Puspa Wardhani	OP-34	IV	Aula FK
Ratna Yulistiani	OP-24	III	International Class
Renardi Gunawan	OP-35	IV	Aula FK

Name	Presentation Code	Session*)	Room
Restry Sinansari	OP-30	IV	Aula FK
Sepling Paling	OP-05	I	Aula FK
Siti Churrotin	OP-33	IV	Aula FK
Sri Murwani	OP-22	III	International Class
Subagyo Yotoprano	OP-36	IV	Aula FK
Tri Wulandari Kesetyaningsih	OP-31	IV	Aula FK
Uswatun Khasanah	OP-29	IV	Aula FK
Zayyin Dinana	OP-23	III	International Class

- \*) Session I : Monday, 8 August 2016; 15.15 – 17.00 WIB  
Session II : Monday, 8 August 2016; 15.15 – 17.00 WIB  
Session III : Monday, 8 August 2016; 15.15 – 17.00 WIB  
Session IV : Tuesday, 9 August 2016; 14.20 – 16.00 WIB

**List of Poster Presenters  
(sorted by their name)**

<b>Name</b>	<b>Poster Code</b>
Adiana Mutamsari Witaningrum	PP-37
Agnes Dwi Sis Perwitasari	PP-17
Agung Dwi Wahyu Widodo	PP-08
Agustinus Widodo	PP-39
Anak Agung Sri Agung Aryastuti	PP-41
Betty Agustina Tambunan	PP-15
Cindy Cecilia	PP-25
Densy Violina Harnanti	PP-40
Desi Indria Rini	PP-24
Dewi Retnoningsih	PP-03
Dian Rachmawati	PP-19
Emy Koestanti Sabdoningrum	PP-21
Etik Ainun Rohmah	PP-28
Farindira Vesti Rahmasari	PP-29
Fauna Herawati	PP-01
Gondo Mastutik	PP-43
Heni Puspitasari	PP-46
Heny Arwati	PP-48
Indeswati Diyatri	PP-07
Kris Cahyo Mulyatno	PP-27
Laura Wihanto	PP-36
Lidya Handayani	PP-10
Lilis Sulistya Nengrum	PP-30
Manik Retno Wahyunitisari	PP-18



<b>Name</b>	<b>Poster Code</b>
Michael Jonatan	PP-02
Muhammad Luthfi	PP-04
Neneng Dewi Kurniati	PP-09
Pepy Dwi Endraswari	PP-20
Prihartini Widiyanti	PP-38
R. Heru Prasetyo	PP-45
Radityo Bagus Wicaksono	PP-14
Retno Budiarti	PP-42
Retno Indrawati	PP-12
Ricardo Adrian Nugraha	PP-50
Rury Mega Wahyuni	PP-44
S. Billy Riyanto	PP-13
Sajuni Widjaja	PP-06
Silfra Yunus Kende	PP-11
Silvia Sutandhio	PP-05
Sri Chusniati	PP-23
Sri Hidajati Bayu Santoso	PP-47
Sri Hidanah	PP-34
Sri Wijayanti Sulistyawati	PP-49
Tamara Yuanitia	PP-32
Teguh Hari Sucipto	PP-26
Titiek Sulistyowati	PP-16
Wardah	PP-31
Wiwied Ekasari	PP-35
Wiwik Tyasningsih	PP-22
Yuniati	PP-33

**Effectiveness meniran (*Phyllanthus niruri* Linn ) as immunomodulators and antibacterial for prevention enterotoxin *Escherichia coli* resistant antibiotics**

***Sri Hidanah, Retno Sri Wahjuni, and Emy Koestanti Sabdoningrum\****

Faculty of Veterinary Medicine, Universitas Airlangga, C Campus UNAIR, Jl. Mulyorejo Surabaya 60115

\*Corresponding author, phone number: 031-5992785, email: emykoestanti@yahoo.co.id

**Abstract**

*Escherichia coli* can be isolated from the environment outside and inside the house and found at least 89 serotypes of which 21 % showed resistance to various antibiotics. *Escherichia coli* resistant plasmid containing more than sensitive. The used of antibiotics should be re-evaluated, as well as over *Escherichia coli* enterotoxin. Plants meniran (*Phyllanthus niruri* Linn) is a plant that can be used as an alternative prevention and treatment of diseases caused by *Escherichia coli* enterotoxin. This type of research is experimental design was completely randomized with 25 experimental unit five treatments P0 + (groups of chickens infected by *Escherichia coli*), P0- (control group), P1 (groups of chickens infected by *Escherichia coli* + extract meniran (dose 20 %), P2 (chicken flocks infected *Escherichia coli* extract meniran dose + 25 %), P3 (groups of chickens infected by *Escherichia coli* extract meniran dose + 30 %). This research results obtained *Escherichia coli* resistance to some antibiotics showed resistant to Amoxicillin, Amphicillin, Erythromycin, Cephalosporins, Tetracycline, Cloxacilin and Gentamicin. Also obtained extracts meniran and activation test results and the potential for *Escherichia coli* showed meniran extract invitro has the power to kill the *Escherichia coli* bacteria at concentrations of 30 % of chickens infected by *Escherichia coli*.

**Keywords** Meniran, enterotoxin *Escherichia coli*, antibiotic resistant

> |



# Effectiveness Meniran ( *Phyllanthus Niruri* Linn ) as Immunomodulators and Antibacterial for Prevention Enterotoxin *Escherichia Coli* Resistant Antibiotics

Sri Hidanah, Retno Sri Wahjuni, Emy Koestanti Sabdoningrum

Faculty of Veterinary Medicine, Universitas Airlangga, C Campus UNAIR, Jl. Mulyorejo Surabaya 60115

\*Corresponding author: phone number: 031-5992785, fax: 031-5993015 email: emykoestanti@yahoo.co.id



## ABSTRACT

*Escherichia coli* can be isolated from the environment outside and inside the house and found at least 89 serotypes of which 21 % showed resistance to various antibiotics. *Escherichia coli* resistant plasmid containing more than sensitive. The used of antibiotics should be re-evaluated, as well as over *Escherichia coli* enterotoxin. Plants meniran ( *Phyllanthus niruri* Linn ) is a plant that can be used as an alternative prevention and treatment of diseases caused by *Escherichia coli* enterotoxin. This type of research is experimental design was completely randomized with 25 experimental unit five treatments P0 + ( groups of chickens infected by *Escherichia coli* ), P0- ( control group ), P1 ( groups of chickens infected by *Escherichia coli* + extract meniran ( dose 20 % ), P2 ( chicken flocks infected *Escherichia coli* extract meniran dose + 25 % ), P3 ( groups of chickens infected by *Escherichia coli* extract meniran dose + 30 % ). This research results obtained *Escherichia coli* resistance to some antibiotics showed resistant to Amoxicillin, Ampicillin, Erythromycin, Cephalosporins, Tetracycline, Cloxacillin and Gentamicin. Also obtained extracts meniran and activation test results and the potential for *Escherichia coli* showed meniran extract invitro has the power to kill the *Escherichia coli* bacteria at concentrations of 30 % of chickens infected by *Escherichia coli*.

Keywords : Meniran , enterotoxin *Escherichia coli* , antibiotic resistant

## BACKGROUND

The cause of diarrheal disease in chicken by *Escherichia coli* for their enterotoxin *Escherichia coli*. Poultry, especially chickens are farm animals being particularly vulnerable to diseases that result in decreased productivity and cause great harm if treatment is not successful. One of the diseases that are common and detrimental to farmers is a bacterial infection *Escherichia coli*.

Losses due to diseases such as *Escherichia coli* or Colibacillosis high chicken mortality can reach 30 %. Colibacillosis disease attacks young chickens until harvesting around the age of 5-32 days. Diagnosis and treatment and improper control of *Escherichia coli* infections often occur resistance to antibiotics. *Escherichia coli* can be isolated from the environment outside and inside the house and found at least 89 serotypes of which 21 % showed resistance to various antibiotics. *Escherichia coli* resistant plasmid containing more than sensitive. The use of antibiotics should be re-evaluated, as well as against enterotoxin enterohemorrhagic *Escherichia coli*, and virulence factors *Escherichia coli*. Plants meniran ( *Phyllanthus niruri* Linn ) is a plant that can be used as an alternative prevention and treatment of diseases caused by *Escherichia coli*. The chemicals contained in meniran include flavonoids and tannins. The function of flavonoids is as immunomodulator whose role is to boost the immune system and improve the immune system is dysfunctional. Tannins efficacious as an antiseptic ( prevents bacterial growth ) and hemostatic ( stops bleeding ). Meniran plant extract ( *P. niruri* Linn ) by mouth in chickens can influence the function and activity of the immune system that is as immunostimulatory.

## Research Purposes

- Isolated and identify antibiotic-resistant *Escherichia coli* enterotoxin as the causative agent of loss and death of broilers.
- Applying meniran ( *Phyllanthus niruri* linn ) as immunomodulatory and antibacterial for the prevention of antibiotic-resistant *Escherichia coli* enterotoxin

## Research Methods

Experimental animals used in this study is the number of 25 animals broiler chickens aged 28 days.

P0+: groups of broiler chickens infected by *Escherichia coli* at 28 days with a concentration of 106 CFU / ml / tail orally without being given the plant extract meniran ( positive control ).

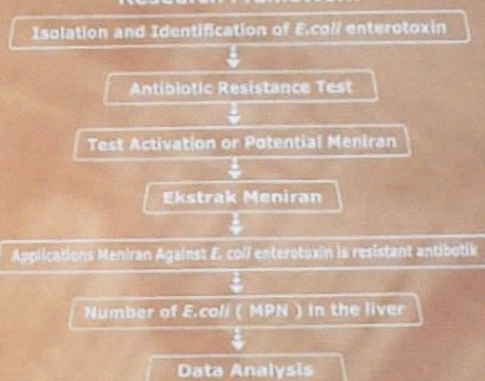
P0-: groups of broilers aged 28 days without being given any treatment (negative control)

P1: groups of broiler chickens infected by *Escherichia coli* at 28 days with a concentration of 106 CFU / ml / each day was then given a dose of plant extracts meniran with a concentration of 20 % / ml / tail as orally

P2: groups of broiler chickens infected by *Escherichia coli* at 28 days with a concentration of 106 CFU / ml / each day was then given a dose of plant extracts meniran with a concentration of 25 % / ml / tail as orally

P3: groups of broiler chickens infected by *Escherichia coli* at 28 days with a concentration of 106 CFU / ml / each day was then given a dose of plant extracts meniran with a concentration of 30 % / ml / tail as orally

## Research Framework



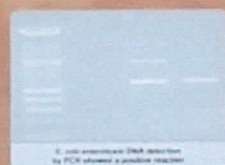
## THE RESULTS

The results of a survey of isolation and identification of the bacterium *Escherichia coli* in broiler chicken liver samples of broiler chicken farms in Tuban and Mojokerto who showed symptoms of *Escherichia coli* infection with typical symptoms of diarrhea and sepsis throughout the body or body bluish contained *Escherichia coli* bacteria were isolated and identified in hepatic from 29 sample 17 of Tuban and 12 of Mojokerto positive *Escherichia coli* sample 20 that 12 of Tuban and 8 of Mojokerto.



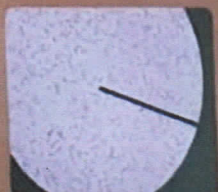
## Results PCR

*E. coli* against Antibiotic Resistance Test  
Hasil uji resistensi *Escherichia coli* terhadap antibiotik menunjukkan adanya resistensi terhadap antibiotika Amoxicillin, Ampicillin, Erythromycin, Cloxacillin, Cephalosporin, Tetracyclin dan Gentamycin.



Tabel Mean and Standard Deviation ( SD )

Treatments	Mean ± SD
P0 (+)	2,7732 ± 0,53645
P0 (-)	0,7593 ± 0,22578
P1	2,3181 ± 0,83574
P2	1,4210 ± 0,32792
P3	1,1799 ± 0,81489



## CONCLUSION

1. It can be isolated and identification of *E. coli* enterotoxin of broiler chickens in broiler chicken farms Tuban and Mojokerto
2. *E. coli* isolates obtained alry Amoxicillin resistant to antibiotics, Ampicillin, Erythromycin, Cloxacillin, Cephalosporins, Tetracycline, and Gentamycin
3. It has been able to electrically insulated and identification of *E. coli* enterotoxin of broilers
4. Extract meniran obtained has the power to kill the *E. coli* enterotoxin at a concentration of 10 % in vitro
5. Extract meniran dose 30 % effective as an antibacterial and immunomodulatory against *E. coli* enterotoxin of broilers