

Construction of *Escherichia coli* DH5 α Cell Carrying Cysteine Desulphydrase Gene from *Klebsiella pneumoniae*

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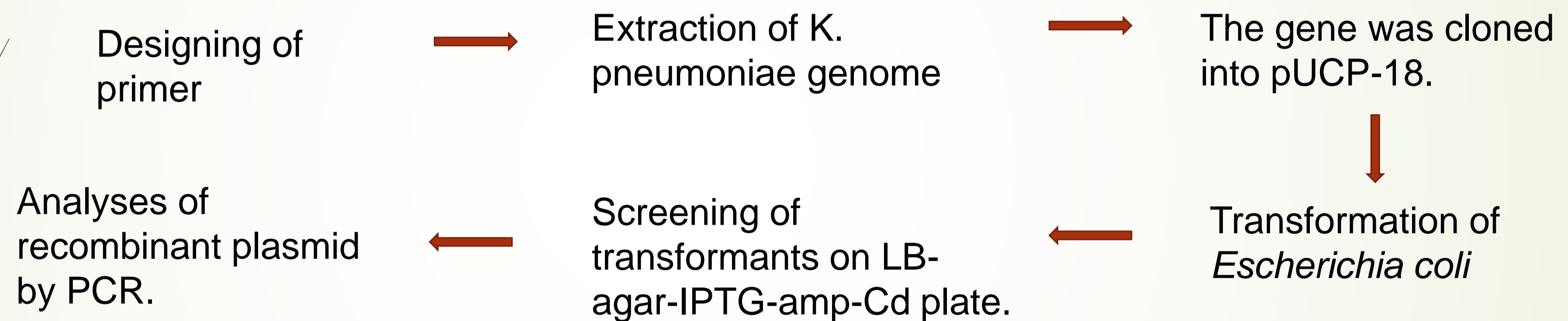
Background

Klebsiella pneumoniae is one of pathogenic bacteria known to be able to detoxify cadmium. Cadmium - resistant *Klebsiella pneumoniae* is usually isolated from-high cadmium areas. In this study, *Klebsiella pneumoniae* was isolated from human oral cavity to study cadmium detoxification by cysteine desulphydrase. The aim of this research is to clone cysteine desulphydrase gene of *Klebsiella pneumoniae* isolated from oral cavity into *Escherichia coli*.

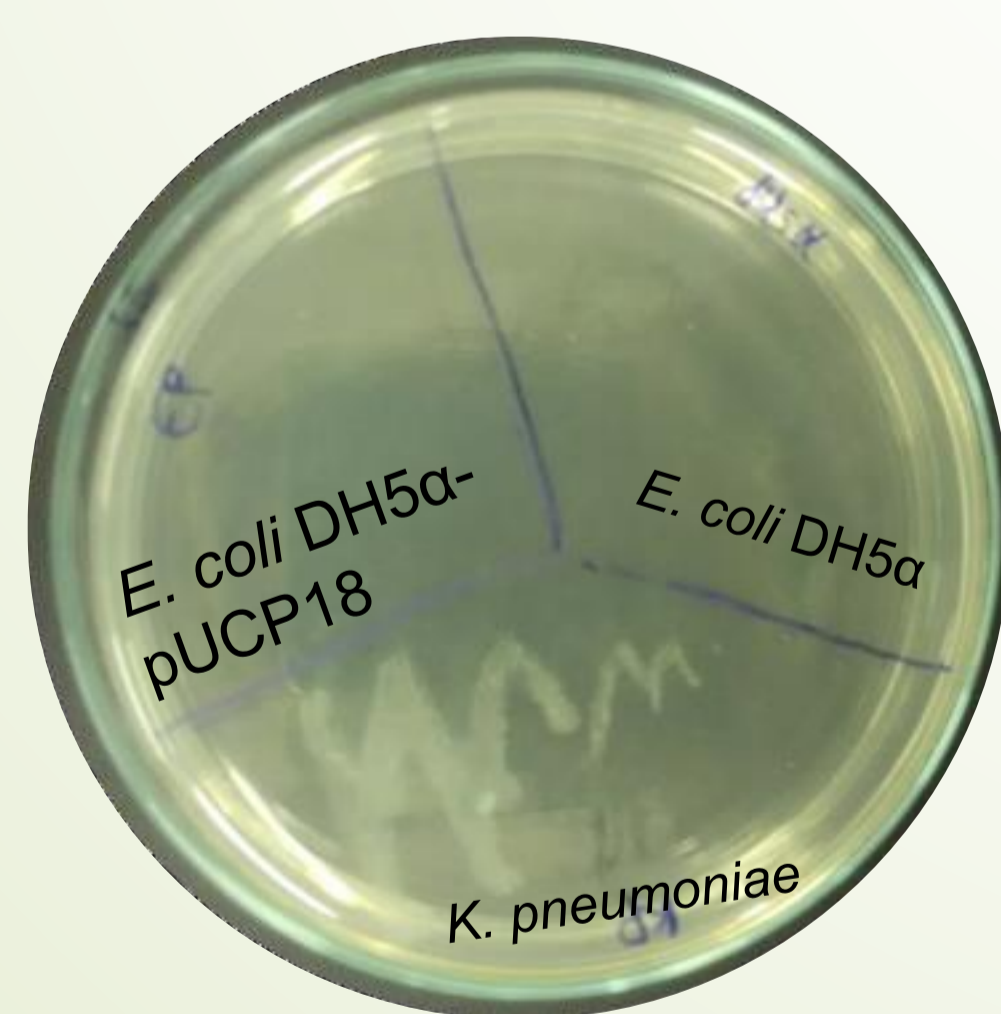
Objective

The aim of this research is to clone cysteine desulphydrase gene of *Klebsiella pneumoniae* isolated from oral cavity into *Escherichia coli*.

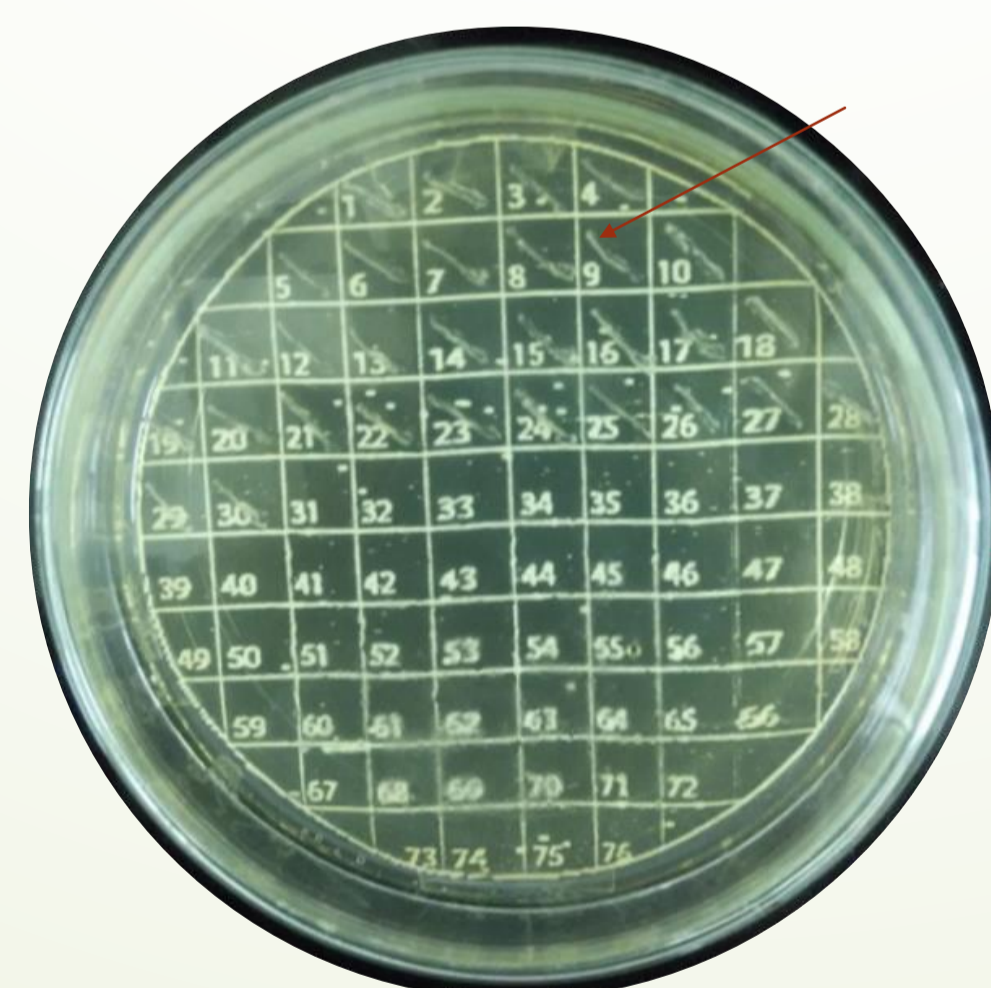
Methods



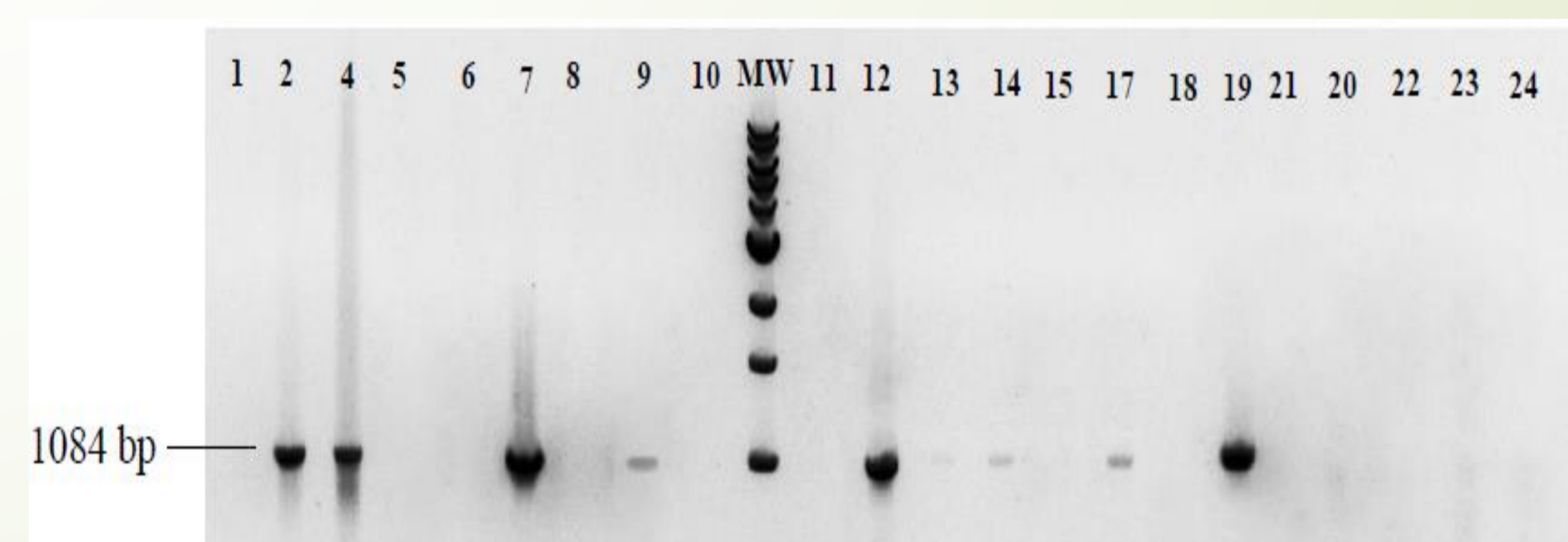
Results



Only *K pneumoniae* grew on LB-Agar+ IPTG-Cd 75 ppm



Several *E. coli* transforman grew on LB-Agar+ IPTG-Cd 75 ppm



Only 8 transforman contains *cds* gene (colony number 2, 4, 7, 9, 12, 14, 17, and 19)

Conclusion

The cloning of cysteine desulphydrase gene from *K. pneumoniae* isolated from oral human was succesfully been done and generated 8 cadmium-resistance *E. coli* transformants

Acknowledgement

PDUPT Grant 2021, Kementerian Dikbudristek, 010/SP-Lit/AMD/LPPM-01/Dikbudristek/Multi/FTB/VII/2021



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CERTIFICATE

No : E.2.g/835/FPP-UMM/VII/2021



We hereby confirm that

Mariana Wahjudi

Has participated as **poster presenter**, with the titled:

Construction of Escherichia coli DH5 α Cell Carrying Cysteine Desulphydrase Gene from Klebsiella pneumoniae

at

2nd International Conference on Bioenergy & Environmentally Sustainable Agriculture Technologies

July 28nd, 2021

University of Muhammadiyah Malang, Indonesia

Dr. David Hermawan
Dean Faculty of Agriculture
and Animal Science



Dr. Damat
Conference Convener

Co-hosting Partners :



Recording

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2nd ICoN-BEAT
International Conference **2021**
on Bioenergy and Environmentally Sustainable
Agriculture Technologies
Wednesday, 28 July 2021

IC2_155_Mari... IC2_103_Nur... Vice Dean I_FPP... IC2-111 Raha... Asmawati Raba FPP UNMUH

ina Mawan

50 Participants 2 Chat Share Screen Record Reactions

International Conference on Bio-Energy and Environmentally Sustainable Agriculture Technologies (ICoN-BEAT)

July 28th - 29th, 2021

University of Muhammadiyah Malang (UMM)
Venue at Rayz Hotel UMM, Malang City, Indonesia



([HTTPS://DOCS.GOOGLE.COM/FORMS/D/E/1FAIPQLSD4-l9oA4X_LEXBJ1WGZ2MK1OWAK75963DSQKSVI](https://docs.google.com/forms/d/e/1FAIPQLSD4-l9oA4X_LEXBJ1WGZ2MK1OWAK75963DSQKSVI))

ICoN-BEAT MAIN EVENT

0 0 0 0
Days Hours Minutes Seconds

TIME UP

ABOUT ICoN-BEAT

The International Conference on Bio-Energy and Environmentally Sustainable Agriculture Technologies (ICoN-BEAT) is the second international conference held by the Faculty of Agriculture and Animal Science, it is part of [ICoSDev \(International Conference on Interdisciplinary Collaboration For Sustainable Development\)](#) (<http://icosdev.umm.ac.id/>) by University of Muhammadiyah Malang. The conference will be held on July 28th - 29th 2021 in Malang, Indonesia.

This year the conference was held in a **blended meeting (combination of offline and online conference)**. This event aims to provide a technical forum and research discussion related to renewable research in the agriculture and related fields. Researchers, academics, scientists, students, engineers and practitioners are

invited together to participate and present their latest research findings, related to various aspects of bioenergy/renewable energy and environmentally sustainable agriculture technologies.



THEME OF THE CONFERENCE

"Toward Food, Water and Energy Sovereignty"

CONFERENCE TOPICS

Bio Energy

This subtopics will cover all broads of research related to bioenergy:

Biomass	Biogas	Biofuels	Energy Plant
Life Cycle Assessment (LCA)	Rural Development	Advanced Energy Technologies (Energy Efficiency, Energy Markets, Energy, Policy, Economics, Planning and Regulation)	Other renewable energy related subtopics

Environmentally Sustainable Agriculture

This subtopics will cover innovation in research and technology related to sustainability of agriculture and forestry system:

Animal Science (Biotechnology, Breeding, Feed and Nutrition, Veterinary)	Plant Science (Biotechnology, Breeding, Agro-Technology, Pest and Disease, Soil Sciences)	Fisheries (Aquaculture, Marine and Coastal Management)
Forestry (Conservation, Climate Change, Adaptation and Mitigation, Silviculture)	Food Science and Technology (Food Chemistry, Food Engineering and Nanotechnology, Food Microbiology and Safety, Nutrition, Integrated Food Science)	Sustainable Agribusiness and Agricultural Economics
Eco-design and Eco-efficiency	Ecology and Biodiversity Conservation	Efficient Use of Resources
Environmental Impact Assessment	Environmental Policy, Economics, Planning and Regulation	Environmental Pollution and Pollution Control

KEYNOTE SPEAKERS



Dr. Dadan Kusdiana
*Director-General of Renewable Energy and Energy Conservation
Republic of Indonesia*
Indonesia



Prof. Didiek Hadjar Goenadi
Indonesian Research Institute for Biotechnology and Bioindustry
Indonesia



Prof. Hiroyuki Sakakibara
Departement of Biochemistry and Applied Bioscience
University of Miyazaki
Japan



Assoc Prof Andrew Barnes
School of Biological Science



Assoc Prof. Juris Burlakovs
Department of Water Management



Assoc Prof. Zane Vincevica Gaile
Department of Environmental Science



Henik Sukorini Ph.D
Department of Agrotechnology

Schedule of 2nd ICoN-BEAT 2021

Venue : University of Muhammadiyah Malang, Indonesia

Date	Time	Event	Location
Wednesday, 28th July 2021	07.00-07.50	Registration (Registration for conference and workshop-coaching clinic)	Zoom Meeting
	07.50-08.00	Opening Ceremony Opening by Master of Ceremony	Zoom Meeting
	08.00-08.05	National Anthem & Sang Surya	
	08.05-08.15	Welcome Dance	
	08.15-08.30	Welcoming Speech Vice Rector IV of UMM (Dr. Sidik Sunaryo, SH., M.Si.)	
	08.30-08.45	Coffee Break	
	08.45-09.15	Keynote: Dr. Ir. Dadan Kusdiana, M.Sc (Indonesia)	
	09.15-09.45	Keynote: Prof. Didiek Hadjar Goenadi (Indonesia)	
	09.45-10.15	Keynote: Prof. Hiroyuki Sakakibara (Japan)	
	10.15-10.45	Keynote: Assoc Prof. Juris Burlakovs (Estonia)	
	10.45-11.15	Keynote: Assoc Prof. Zane Vincevica Gaile (Latvia)	
	11.15-11.45	Keynote: Henik Sukorini, Ph.D	
	11.45-11.50	Invocation	
	11.50-14.50	Lunch Break & Poster Presentation	Zoom Meeting
	12.25-14.45	1st Parallel Session : Oral Presentation	Zoom Meeting Room 1,2,3,4,5,6,7
	14.45-15.15	Break Time	
	15.15-16.55	2nd Parallel Session : Oral Presentation	Zoom Meeting Room 1,2,3,4,5,6,7
	16.55-18.30	Break Time	-
	18.30-21.00	Closing Ceremony; <i>Best Presenter Announcement</i>	Zoom Meeting

Schedule of Oral and Poster Presentation IcoN-BEAT 2021

Venue : Zoom Meeting UMM

Date : 28 July 2021

Event	Time	Location	Detail
Poster Presentation	11.50-14.50	GKB 1 UMM	All Scope (10 Participants)
Oral Presentation	12.25-14.45	Zoom Meeting Room 1	Bioenergy and Efficient Of Resource (9 Participants)
		Zoom Meeting Room 2	Animal Science (15 Participants)
		Zoom Meeting Room 3	Fisheries (11 Participants)
		Zoom Meeting Room 4	Food Science (17 Participants)
		Zoom Meeting Room 5	Agrotechnology 1 st Room (19 Participants)
		Zoom Meeting Room 6	Agrotechnology 2 nd Room (19 Participants)
		Zoom Meeting Room 7	Agribusiness And Socio Economics (21 Participants)
Break Time	14.45-15.15		
Oral Presentation (Continuing Presentation)	15.15-16.55	Zoom Meeting Room 1	Environmental (12 Participants)
		Zoom Meeting Room 2	Animal Science (15 Participants)
		Zoom Meeting Room 3	Fisheries (11 Participants)
		Zoom Meeting Room 4	Food Science (17 Participants)
		Zoom Meeting Room 5	Agrotechnology 1 st Room (19 Participants)
		Zoom Meeting Room 6	Agrotechnology 2 nd Room (19 Participants)
		Zoom Meeting Room 7	Agribusiness And Socio Economics (21 Participants)

Notes:

- **Oral & Poster Presentation and Questions and Answers time : 10 minutes/ participant**
- **Please make 5-7 slides/ presentation.**

- **Schedule of Oral Presentation IcoN-BEAT 2021**

Theme : **Agribusiness And Socio Economics**
Moderator : **Yohana Agustina**

Time	Number	Presenter	Code
12.30-12.40	1	Agung Purnomo	IC2-002
12.40-12.50	2	Belinda Azzahra Irwan Putri	IC2-139
12.50-13.00	3	Dea Ratna Putri Wibowo	IC2-130
13.00-13.10	4	Dika Supyandi	IC2-039
13.10-13.20	5	Totok Hendarto	IC2-023
13.20-13.30	6	Kartika Noerwijanti	IC2-012
13.30-13.40	7	Ida Ekawati	IC2-126
13.40-13.50	8	Ema Hilma Meilani	IC2-038
13.50-14.00	9	Ruly Krisdiana	IC2-092
14.00-14.10	10	Muhammad Thamrin	IC2-127
14.10-14.20	11	Nur Syamsiyah	IC2-147
14.20-14.30	12	Pawana Nur Indah	IC2-134
14.30-14.40	13	Rahayu Relawati	IC2-111
14.40-14.45	Closing 1st Session		
Break Time	14.45-15.15		
15.15-15.20	Opening 2nd Session		
15.20-15.30	14	Vinny Fianita	IC2-055
15.30-15.40	15	Bambang Yudi Ariadi	IC2-031
15.40-15.50	16	M. Zul Mazwan	IC2-075
15.50-16.00	17	Gumoyo Mumpuni Ningsih	IC2-135
16.00-16.10	18	Dyah Erni Widyastuti	IC2-043
16.10-16.20	19	Ary Bachtiar	IC2-079
16.20-16.30	20	Istis Baroh	IC2-154
16.30-16.40	21	Jabal Tarik Ibrahim	IC2-050
16.40-16.55	Closing 2nd Session		

Schedule of Oral Presentation IcoN-BEAT 2021

Theme : **Agrotechnology 1st Room**
Moderator : **Fatimah Nursandi**

Time	Number	Presenter	Code
12.30-12.40	1	Baiq Erna Listiana	IC2-094
12.40-12.50	2	Chairil Ezward	IC2-021
12.50-13.00	3	Deliana Mangisu	IC2-003
13.00-13.10	4	Heru Kuswanto	IC2-110
13.10-13.20	5	Ali Ikhwan	IC2-028
13.20-13.30	6	I Ketut Sumantra	IC2-001
13.30-13.40	7	Dyah Roeswitawati	IC2-059
13.40-13.50	8	Fatimah Nursandi	IC2-046
13.50-14.00	9	Faza Abdurahman Fiddin	IC2-005
14.00-14.10	10	Harun Rasyid	IC2-124
14.10-14.20	11	Sri Wahyuni Indiaty	IC2-093
14.20-14.30	12	Luluk Sulistiyo Budi	IC2-149
14.30-14.40	13	Maftuchah	IC2-074
14.40-14.50	14	Muanah	IC2-121
14.50-14.55	Closing 1st Session		
Break Time	14.55-15.15		
15.15-15.20	Opening 2nd Session		
15.20-15.30	15	Agus Zainudin	IC2-072
15.30-15.40	16	Aniek Iriany	IC2-054
15.40-15.50	Closing 2nd Session		

Schedule of Oral Presentation ICoN-BEAT 2021

Theme : **Agrotechnology 2nd Room**
Moderator : **Devi Dwi Siskawardani**

Time	Number	Presenter	Code
12.30-12.40	1	Praptiningsih Gamawati Adinurani	IC2-146
12.40-12.50	2	I Ketut Widnyana	IC2-048
12.50-13.00	3	Sufianto	IC2-045
13.00-13.10	4	Syafira Fatihatul Husna	IC2-020
13.10-13.20	5	Syarif Husen	IC2-129
13.20-13.30	6	takiyan abdullah	IC2-138
13.30-13.40	7	Untung Santoso	IC2-062
13.40-13.50	8	Wahono	IC2-051
13.50-14.00	9	Yohana Theresia Maria Astuti	IC2-099
14.00-14.10	10	Poppy Diana	IC2-016
14.10-14.20	11	Mohamad Arif	IC2-078
14.20-14.30	12	Henik Sukorini	IC2-042
14.30-14.40	13	Novian Wely Asmoro	IC2-041
14.40-14.50	14	Dian Indratmi	IC2-029
14.50-15.00	Closing 1 st Session		
Break Time	14.45-15.15		
15.15-15.20	Opening 2nd Session		
15.20-15.30	15	Erny Ishartati	IC2-122
15.30-15.40	16	Erny Ishartati	IC2-123
15.40-16.55	Closing 2nd Session		

Schedule of Oral Presentation ICoN-BEAT 2021

Theme : **Animal Science**
Moderator : **Apriliana Devi Anggraini**

Time	Number	Presenter	Code
12.30-12.40	1	Ahmad Wahyudi	IC2-081
12.40-12.50	2	Apriliana Devi Anggraini	IC2-070
12.50-13.00	3	Ayu Sismi Hardi Ningrum	IC2-119
13.00-13.10	4	Asmah Hidayati	IC2-052
13.10-13.20	5	Imbang Dwi Rahayu	IC2-137
13.20-13.30	6	Indah Prihartini	IC2-033
13.30-13.40	7	Khusnul Khotimah	IC2-082
13.40-13.50	8	Lili Zalizar	IC2-034
13.50-14.00	9	Abdul Malik	IC2-142
14.00-14.10	10	Sujono	IC2-030
14.10-14.20	11	Suyatno	IC2-118
14.20-14.30	12	Wahyu Widodo	IC2-017
14.30-14.40	13	Wehandaka Pancapalaga	IC2-010
14.40-14.50	Closing Session		

Schedule of Oral Presentation IcoN-BEAT 2021

Theme : **Fisheries**
Moderator : **Soni Andriawan**

Time	Number	Presenter	Code
12.30-12.40	1	Anis Zubaidah	IC2-018
12.40-12.50	2	Diana Rachmawati	IC2-132
12.50-13.00	3	Aqil Azizi	IC2-022
13.00-13.10	4	Hany Handajani	IC2-063
13.10-13.20	5	Istiyanto Samidjan	IC2-144
13.20-13.30	6	Siti Hajar Suryawati	IC2-125
13.30-13.40	7	Soko Nuswantoro	IC2-056
13.40-13.50	8	Soni Andriawan	IC2-056
13.50-14.00	9	Istiyanto Samidjan	IC2-145
14.00-14.15	Closing Session		

Schedule of Oral Presentation IcoN-BEAT 2021

Theme : **Food Technology**
Moderator : **Rista Anggriani**

Time	Number	Presenter	Code
12.30-12.40	1	Agung Setyarini	IC2-064
12.40-12.50	2	Asmawati	IC2-008
12.50-13.00	3	Umami Rohajati	IC2-076
13.00-13.10	4	Mochamad Wachid	IC2-049
13.10-13.20	5	Muhammad Alfian Mizar	IC2-086
13.20-13.30	6	Mulia W. Apriliyanti	IC2-120
13.30-13.40	7	Noor Harini	IC2-019
13.40-13.50	8	Nur Aini	IC2-095
13.50-14.00	9	Nurhayati	IC2-036
14.00-14.10	10	Rima Azara	IC2-037
14.10-14.20	11	Warkoyo	IC2-128
14.20-14.30	12	Sukardi	IC2-068
14.30-14.40	13	Vritta Amroini W	IC2-057
14.40-14.50	14	Sri Winarsih	IC2-014
14.50-15.00	15	Devi Dwi Siskawardani	IC2-156
15.00-15.15	Closing Session		

Schedule of Oral Presentation IcoN-BEAT 2021

Theme : **Bioenergy and Efficient Of Resource + Environmental**
Moderator : **Nirmala Ayu Aryanti**

Time	Number	Presenter	Code
12.30-12.40	1	Fefria Tanbar	IC2-067
12.40-12.50	2	Herry Susanto	IC2-085
12.50-13.00	3	Meiri Triani	IC2-087
13.00-13.10	4	Mila Viendyasari	IC2-116
13.10-13.20	5	Nur Cahyo	IC2-103
13.20-13.30	6	Rizky Irvana	IC2-117
13.30-13.40	7	Ruly Sitanggang	IC2-140
13.40-13.50	8	Taufik Iskandar	IC2-015
13.50-14.00	9	Asep Sadili	IC2-091
14.00-14.10	10	Rahmad Pramulya	IC2-040
14.10-14.20	11	Joko Triwanto	IC2-006
14.20-14.30	12	Ratih Madya Septiana	IC2-024
14.30-14.40	13	Thobela Louis Tyasi	IC2-047
14.40-14.45	Closing 1st Session		
Break Time	14.45-15.15		
15.15-15.20	Opening 2nd Session		
15.20-15.30	14	Indry Chahyana	IC2-013
15.30-15.40	15	Pither Palamba	IC2-004
15.40-15.50	16	Wahidin Nuriana	IC2-112
15.50-16.00	17	Muhannad I. Massadeh	IC2-152
16.00-16.10	18	Ika Pruwita	IC2-025
16.10-16.15	Closing 2nd Session		

Schedule of Oral Presentation IcoN-BEAT 2021

Theme : Poster Session

Number	Code	Presenter
1	IC2-141	Aris Winaya
2	IC2-009	Damat
3	IC2-069	Yohana Agustina
4	IC2-007	Galit Gatut Prakosa
5	IC2-089	Nugroho Tri Waskitho
6	IC2-150	Sri Rahayu
7	IC2-090	Rohmad Budiono
8	IC2-151	Johni Jonatan Numberi
9	IC2-073	Rista Anggriani
10	IC2-071	Erfan Dani
11	IC2-133	Rusli
12	IC2-106	Sri Wahyuni Indiaty
13	IC2-131	Sri Sukaryani
14	IC2-044	Aulia Zakia
15	IC2-027	Desiana Nuriza Putri
16	IC2-155	Mariana Wahjudi
17	IC2-035	Dony Prasetyo
18	IC2-058	Ganjar Adhywirawan Sutarjo
Closing Session		



UNIVERSITAS SURABAYA
LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT

Gedung Perpustakaan Lantai 4 - Jalan Raya Kalirungkut (Tenggilis), Surabaya, 60293
Telp. (031) 2981360, 2981365 | Fax. (031) 2981373 | website: lppm.ubaya.ac.id | e-mail: lppm@unit.ubaya.ac.id

SURAT TUGAS

Nomor: 010/ST-Lit/LPPM-01/RistekBRIN/Multi/FTB/III/2021

Atas dasar Surat Perjanjian Pelaksanaan Penugasan Program Hibah Penelitian Tahun Jamak dengan skim Penelitian Dasar Unggulan Perguruan Tinggi Tahun Anggaran 2021, nomor: 010/SP-Lit/LPPM-01/RistekBRIN/Multi/FTB/III/2021 tanggal 18 Maret 2021, dengan ini Ketua Lembaga Penelitian dan Pengabdian Kepada Masyarakat Universitas Surabaya memberi tugas kepada :

1. Dr. Dra. Mariana Wahjudi, M.Si.(Ketua Peneliti)
2. Drs. Mangihot Tua Goeltom, M.Sc.(Anggota Peneliti 1)
3. Fenny Irawati, S.Si., M.Si.(Anggota Peneliti 2)
4. Lie, Yoanes Maria Vianney, S.Si., M.Biotek.(Pembantu Peneliti 1)
5. Siti Maryam, S.Si.(Sekretariat Peneliti)
6. DINDA FLUOR AGUSTIN(Pembantu Peneliti 2)
7. HADINATA SANTOSO(Pembantu Peneliti 3)
8. JONATHAN RAPHAEL HONANTHA(Pembantu Peneliti 4)
9. STEVEN EDIBERTO NUGROHO(Pembantu Peneliti 5)
10. SARI FADIA IZWARI(Pembantu Peneliti 6)

untuk melaksanakan penelitian sesuai proposal dengan judul :

**Perakitan Strip-Test Kit Berbasis DNA Untuk Deteksi Cepat Klebsiella Pneumoniae
Dari Sputum Pasien**

dengan waktu pelaksanaan penelitian mulai 18 Maret 2021 sampai dengan 12 Nopember 2021 (sesuai dengan Surat Perjanjian Pelaksanaan Penugasan Program Hibah Penelitian), dengan anggaran sebesar Rp. 213.825.000 (dua ratus tiga belas juta delapan ratus dua puluh lima ribu rupiah) dan hasil akhir diwujudkan:

1. *Hard copy* laporan hasil pelaksanaan Program Hibah Penelitian (3 eksemplar) dan *soft copy* diunggah di SIMLITABNAS.
2. Laporan keuangan dengan bukti-bukti pengeluaran yang asli dan mengisi laporan keuangan, catatan harian, Surat Pernyataan Tanggungjawab Belanja (SPTB) yang telah dilaksanakan dan laporan kemajuan ke SIMLITABNAS.
3. Luaran pelaksanaan program sesuai yang dijanjikan di proposal dan luaran berupa artikel ilmiah, poster, profil, borang capaian hasil (bagi penelitian di tahun terakhir) diunggah di SIMLITABNAS.

Penerima tugas **WAJIB** mengikuti segala aturan yang dikeluarkan oleh RistekBRIN dan LL DIKTI Wilayah VII dan/atau Universitas Surabaya.

Demikian Surat Tugas ini dibuat untuk dilaksanakan sebaik-baiknya.

Mengetahui

Wakil Rektor I



Dr.rer.nat. Maria Goretti Marianti Purwanto

Surabaya, 11-05-2021

Ketua LPPM



Prof. Suyanto, S.E., M.Ec.Dev., Ph.D.

Tembusan:

- Dekan Fak. Teknobiologi
- Direktur Sumberdaya Manusia (SDM)