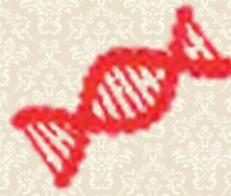


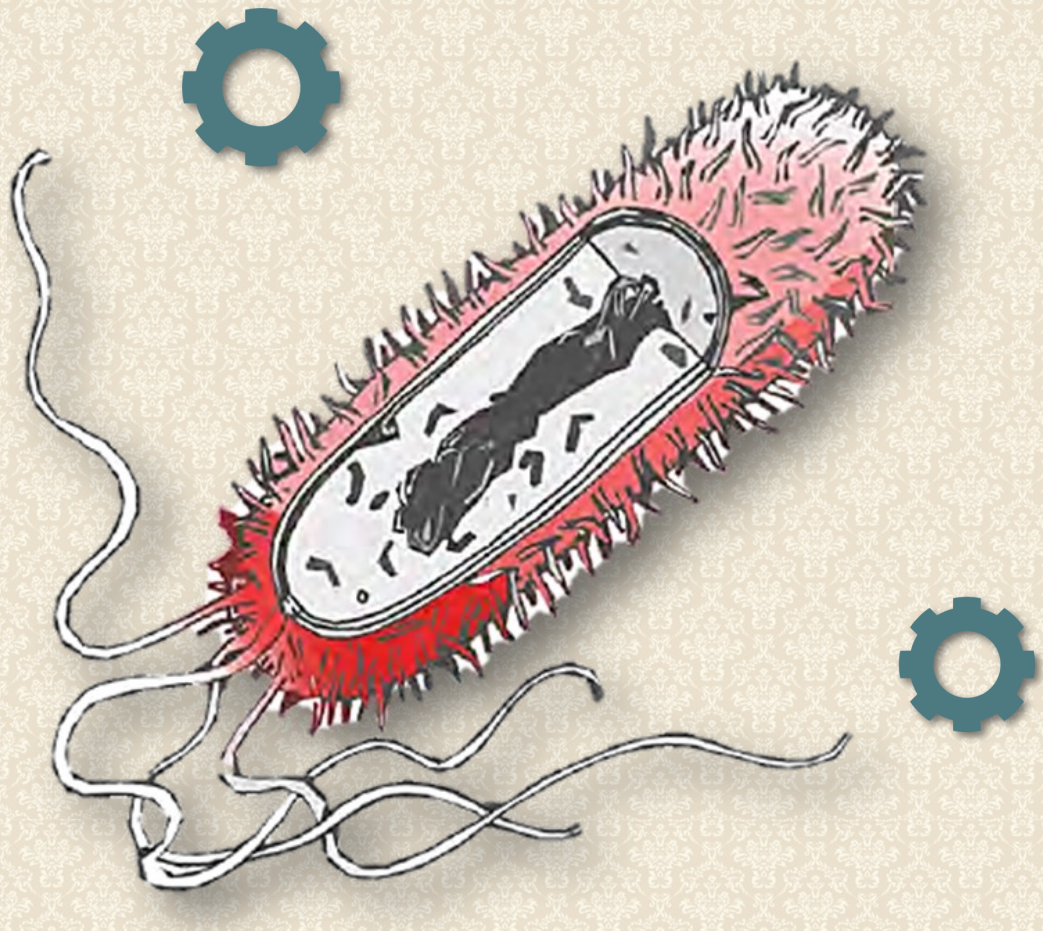




# CREATING



## a newborn



Humans, with their minds and creativity, keep making changes in this life. Different branches of science and technology are developed to answer these changes and problems in life, whether in local or even global scale



One of branches of sciences that has been recognized recently is **Synthetic Biology** (focus on recombining living cell)

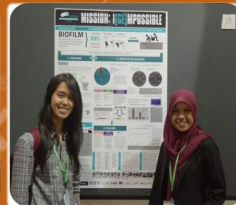


about

**iGem**

**International Genetically Engineered Machine** is an International synthetic biology competition in which every high school students all over the world could participate. Each team will be given a kit containing important DNA parts from repository called the Registry Standards Biological Parts

For several months, the team will be using those parts to design a biological system and operate it in living cells.



iGem's World Jamboree 2015 will be held in  
Hynes Convention Center, Boston, USA, On  
September 24 to September 28



## OUR PROJECT

# "BaContraception"

PROBLEM:



Fixing by:  
"Contraception"



## BACKGROUNDS

Human population always increase year by year. World Population Bureau states that number of human population in the world is about 7238 billions.

Human population increasing logarithmically, in the other hand earth support only increasing arithmetically. It cause other problems like criminalism, misery, health problems, etc.

One of solutions to fix these problems is by applying contraception. But in developing countries like Indonesia, application of contraception still not effective.

## *Solution ?*

### "BaContraception"

*(New Method of Contraception Based on Genetic Engineering)*

- High Effectivity (has spermicidal and constitutive characteristic)
- Easy to applicate
- Always in sterile condition continually
- Easy to back in fertile condition
- More natural in sex sensation than other contraception



*Universitas Indonesia will send their undergraduate candidates for the third time in iGem Competition 2015, after UI iGem Team 2013 and UI iGem Team 2014 has successfully brought Indonesia's name to international attention by winning the silver medal of iGem 2013 Asian Regional Jamboree Hongkong, and gold medal of iGem 2014 World Jamboree, Boston. USA.*



*UI iGem Team consist of 10 members, consisting representative multidisciplinary background medicine, biology, pharmacy, bioengineering, chemical engineering, and public health.*

**And we're ready for**



**iGem 2015**

*During the competitions, UI iGem Team 2014 will be advised by four advisors, each of them represent expert multidisciplinary backgrounds, and also iGem 2014 alumni who are willing to give feedbacks and critics for the team's development. Moreover, the team will be facilitated in the IHVCB (Institute of Human Virology and Cancer Biology Laboratory), Salemba, Universitas Indonesia.*





OUR

# Team



## Human Practice

Amanda Fauzea G.  
(Public Health, 2013)

*Zea*

## Funding

Yolla Miranda  
(Chemical Engineering, 2013)



*Yolla*

Alfiani Guntari Mahadewi  
(Bioengineering, 2013)



*Dewi*



*Cea*

## Design

Safira Candra Asih  
(Bioengineering, 2014)



*Raka*

Raka Bhaskara  
(Pharmacy, 2012)



*Jelly*

Jessica Lius  
(Medicine, 2014)



*Pao Pao*

Faudina  
(Pharmacy, 2013)



*Harlin*

Adi Nugroho  
(Medicine, 2012)

## Labwork

## Modelling

Faustina Martha  
(Bioengineering, 2013)



*Faus*



*Odie*

Yudhistira O.  
(Biology, 2014)



OUR

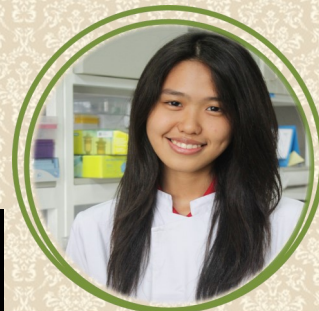
## Advisor



Yuda Sugiarta  
(Medicine, 2012)



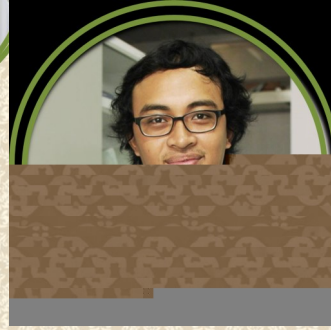
Siska Yuliana Sari  
(Biology, 2011)



Vanessa Geraldine  
(Chemica; Engineering,  
2012)



Etri Dian Kamila  
(Bioengineering, 2012)



Anggoro Wiseso  
(Bioengineering, 2012)

OUR

## Instructor



Dr. Drs. Abinawanto, M.Si

Dr. dr. Budiman, Sp.MK(K)

Dr. Muhammad Sahlan, S.Si, M.Eng



Doni Hikmat R.,  
S.KM, MKK, Ph.D



Dr. Anom Bowo Laksono



Drg. Endang Winiarti B.,  
M.Biomed, Ph.D

Prof. Amaryla Malik, Apt.,  
M.Si





# Journey

of

UI iGem Team



2013: Hong Kong  
Asian Regional Jamboree of International  
Genetically Engineered Machine Competition

*And, we got...*



2014: Boston, USA  
International Genetically Engineered  
Machine Competition

*And, we got.*



2015: Boston, USA  
International Genetically Engineered  
Machine Competition

*And, we will get...*





# Timeline

## March

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



### # Human Practice

By doing discussions with experts about our projects, introducing synthetic biology to communities, and visiting some places.

## April

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

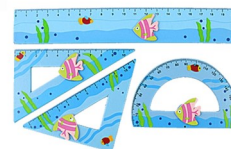


### # Human Practice

By doing discussions with experts about our projects, introducing synthetic biology to communities, and visiting some places.

## May

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						



### # Dry Lab

All process involved in project are modelled in advance modelling

## June-July

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



### # Labwork

Activity for preparing team's project in the laboratory (wet lab). It will take place in IHUCB lab. Faculty of Medicine, Universitas Indonesia

## August

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



### # Wiki site

It is an open source webpage so everyone can access it. It has function to introduce our research project.

## September

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			



### # World Jamboree

It's time for us to go. The iGem competition will be held on September 24th in Hynes Convention Center, Boston MA



# HUMAN PRACTICE

**STRATEGY**

Study about GMO issues in Indonesia by doing discussion with experts, making questionnaire, and making publication in wiki-site

GMO



By doing discussion with experts about the urgency of contraception in order to achieve MDGs 2015's targets, also make article in wiki site

Bacon Urgency



By doing discussion with experts, advocating KB to governments, making open discussion in society located in Karang Pola, South Jakarta, and making publication in wiki-site

Bacon Perspective



By doing discussion with experts and making survey about the controversy of BaCon

Bacon Controversial Side



By doing advocacy to supplier company-contraception product related, analyzing about the commercializing of BaCon, and publication on wiki-site

Bacon for society







# Estimated Cost

No.	Rincian Pengeluaran	Anggaran
<b>A. Registrasi</b>		
1	Registration Fee (\$4500 USD)* (anggaran untuk 1 tim: 10 orang)	Rp. 57.397.500
2	Attendance Fee (@\$1000 USD)* (anggaran untuk 1 tim: 10 orang)	Rp. 127.550.000
		<b>Subtotal</b> Rp. 184.947.500
<b>B. Labwork</b>		
1	Bahan dan Alat Laboratorium	
	-Laboratorium dan Alat	Rp. 104.000.000
	-Reagen	Rp. 20.000.000
	-Enzim	Rp. 16.000.000
		<b>Subtotal</b> Rp. 140.000.000
<b>C. Human Practices</b>		
1	Publikasi dan dokumentasi (banner, bookmark, poster, famplet)	Rp. 7.000.000
2	Kuisisioner dan Aplikasi	Rp. 7.000.000
3	Reward dan Souvenir	Rp. 5.500.000
		<b>Subtotal</b> Rp. 19.500.000
<b>D. Perjalanan Jamboree Internasional (Boston, USA)</b>		
1	Tiket Pesawat PP Jakarta-Boston (10 orang; @Rp. 32.352.000)	Rp. 323.520.000
2	Akomodasi (4 kamar)	Rp. 47.980.000
3	Konsumsi	Rp. 20.000.000
4	Transportasi regional	Rp. 20.000.000
		<b>Subtotal</b> Rp. 411.500.000
<b>TOTAL</b>		<b>Rp. 755.947.500</b>



# Reagen List

## For Request Form

No.	No Katalog	Nama Bahan	Merek	PT	Pemakaian
1	SM0331	GeneRuler DNA Ladder paking 5x50 ug	Thermo Scientific	Biogen Scientific	2 kit
2	R0192	dNTP Mix 10 mM paking 1 mL	Thermo Scientific	Biogen Scientific	1 kit
3	R0491	TopVision Agarose paking 100 gr	Thermo Scientific	Biogen Scientific	1 botol
4	R0611	6X DNA Loading Dye Solution paking 5x1 mL	Thermo Scientific	Biogen Scientific	1 kit
5	R0392	IPTG paking 5 gr	Thermo Scientific	Biogen Scientific	1 kit
6	26614	PageRuler Unstained Protein Ladder paking 2X250uL	Thermo Scientific	Biogen Scientific	1 kit
7	24620	PageBlue Protein Staining Solution paking 1 liter	Thermo Scientific	Biogen Scientific	1 kit
8	3596	96 well, plates, sterile, flat bottom, not treated	Corning	Gaia Science	40 plate
9	431215	Syringe Filter, SFCA, 26 mm, 0.2 um	Corning	Gaia Science	40 syringe
10	430829	Centrifuge tube, 50 mL	Corning	Gaia Science	10 pack
11	T-400-L-R	Axygen, Microcrystal tips 0.5-10uL, Maymum Recovery, 1000's/pack	Axygen	Gaia Science	1 pack
12	TR-222-Y	Axygen, Yellow Tips 200 uL, 1000's/pack	Axygen	Gaia Science	3 pack
13	T-1000-B	Axygen, Blue Tips 1000 uL, 1000's/pack	Axygen	Gaia Science	2 pack
14	PCR-0.5-C	Axygen, PCR Tube 0.5 mL, flat cap, 1000's/pack	Axygen	Gaia Science	1 pack
15	MCT-150-C	Axygen, Microtube 1.5 mL, boil proof, flat cap, 500's/pack	Axygen	Gaia Science	6 pack
16	27104	QIAprep Spin Miniprep Kit	Qiagen	GeneCraft Labs	100 column
17	203603	HotStarTaq Plus DNA Polymerase (250)	Qiagen	GeneCraft Labs	250 unit
18	NEB R3101S	EcoRI-HF - 20000 units	NEB	GeneCraft Labs	20000 unit
19	NEB R3133S	SpeI-HF - 20000 units	NEB	GeneCraft Labs	20000 unit
20	NEB R0145S	XbaI - 20000 units	NEB	GeneCraft Labs	20000 unit
21	NEB R3140S	PstI-HF - 20000 units	NEB	GeneCraft Labs	20000 unit



# Reagen List

**PART. II**

For

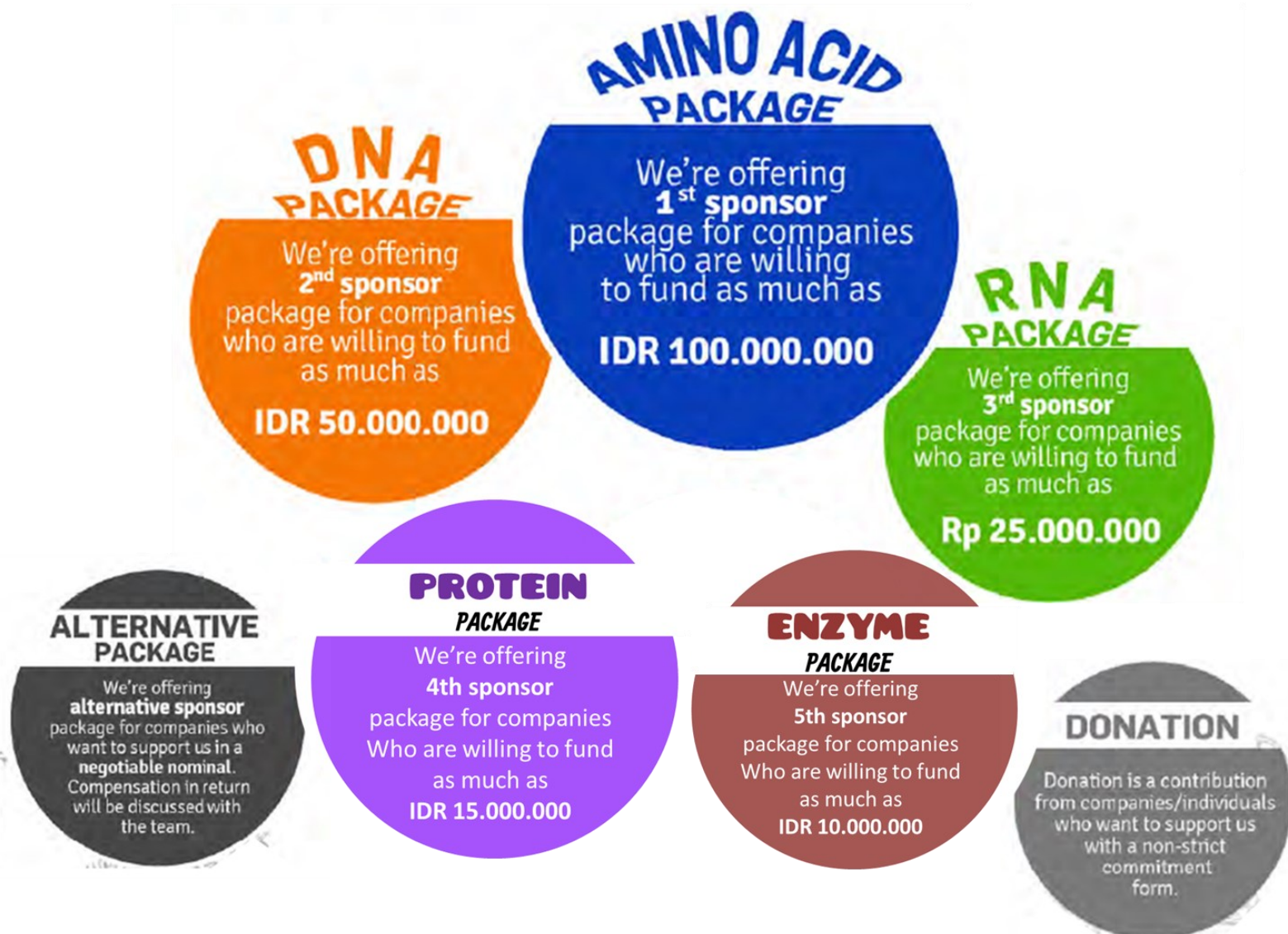
## Request Form

No.	No Katalog	Nama Bahan	Merek	PT	Pemakaian
22	NEB M0202S	T4 DNA Ligase 20000 unit	NEB	GeneCraft Labs	20000 unit
23	NEB M0290L	Alkaline Phosphatase, Calf Intestine (CIP)	NEB	GeneCraft Labs	1 kit
24	Qiagen 19051	Buffer P1 (500 mL)	Qiagen	GeneCraft Labs	500 mL
25	Qiagen 19052	Buffer P2 (500 mL)	Qiagen	GeneCraft Labs	500 mL
26	Qiagen 19066	Buffer PB (500 mL)	Qiagen	GeneCraft Labs	500 ML
27	Qiagen 19064	Buffer N3 (500 mL)	Qiagen	GeneCraft Labs	500 mL
28	Qiagen 19065	Buffer PE (concentrated, 100 mL)	Qiagen	GeneCraft Labs	100 mL
29	M1245	Sensi Gloves	Sensi	Intralab Ekatama	6 kotak
30	M1151	Luria Bertani Broth	Himedia	Intralab Ekatama	1000 gr
31	430791	Luria bertani Agar	Himedia	Intralab Ekatama	1000 gr
32	Invitrogen 11304-011	Platinum Taq DNA Polymerase High Fidelity	Invitrogen	Nutrilab Pratama	100 reaksi
33	S1797-10X5ML	SOC Medium	Sigma	Elokarsa Utama	10 x 5 mL
34	g5516-100 mL	Gliserol	Sigma	Elokarsa Utama	100 mL
35	PM996	Parafilm size 4 inch, Ready (subject t prior sale)	Parafilm	Intralab Ekatama	1 roll
36	E7023-500 ML	Ethanol	Sigma	Elokarsa Utama	500 mL



# SPONSORSHIP Packages

To realize the research project, iGEM also needs the participation around the world especially in Indonesia. Therefore, it would be a huge honor and tremendous opportunity, if you help us by investing in our project





# COMPENSATION

## ITEM

## PACKAGE

Jamboree Presentation

Jamboree Poster

Human Practice Media (video, song, etc)

Human Practice Device (questionnaire, id card)




























Standing Banner

Banner

Pamphlet

Wiki Site

Team T-Shirt (wearing 5 days during jamboree)

AMINO ACID	DNA	RNA	PROTEIN	ENZYM
				
				
				
				
				
				
				
				
				

All forms of sponsorship or donation which have been agreed upon can be transferred to this bank account



Bank : BCA  
 Account Name : Yolla Miranda  
 Account Number : 2990430261



Jamboree Poster



Jamboree Slide Presentation



Banner, St. Banner, Pamphlet



T-Shirt

Front

Back

-  A. Acid package logo (25% smaller than GEM and UI logo)
-  DNA package logo (50% smaller than iGEM and UI logo)
-  RNA package logo (75% smaller than iGEM and UI logo)



Wiki Site  
 UI Team  
 iGEM 2013



# LEMBAR PENGESAHAN

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Sintetik biologi merupakan cabang ilmu baru yang menjanjikan masa depan yang lebih baik untuk dunia, terutama untuk Indonesia. Kami melihat harapan dan kami yakin bahwa kami dapat membuat perubahan bagi dunia dengan megembangkan ilmu sintetik biologi melalui proyek yang akan dijalankan. Oleh karena itu, partisipasi dan kerjasama perusahaan Bapak/Ibu sangat kami butuhkan demi tercapainya kesejahteraan manusia melalui sintetik biologi.

Direktur Kemahasiswaan Universitas Indonesia



Arman Nefi, S.H., M.M.  
NIP 0508050277

Pembimbing

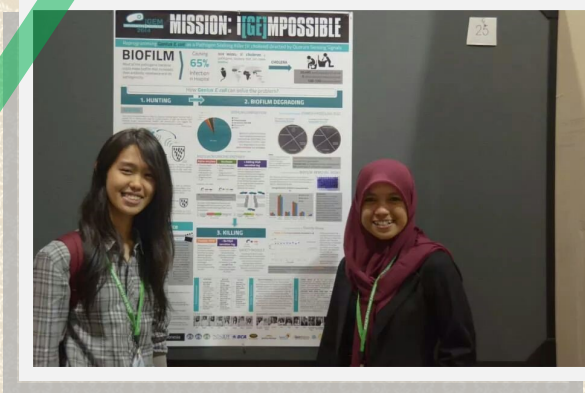


Dr. Muhamad Sahlan, S.Si, M. Eng.  
NIP 100120310261700891





## UI TIM IGEN 2014



Join Us. Participate. Get involved.  
For a better world and a better future.





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Kampus UI Depok 16424 Indonesia

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