

# HALAL PHARMACEUTICALS PRODUCT DEVELOPMENT: HOW TO MAKE HALAL ALTERNATIVE MEDICINES; MOVING FROM THEORY TO PRACTICE.

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# Current situation of halal pharmaceuticals

- Halal pharmaceuticals still new field in halal industry with the minimum number of research and products.
- Halal pharmaceuticals awareness still premature comparing to the halal food and cosmetics sectors.
- Practically most of the registered products are dietary supplements not medicines.

# 17 company / 198 product (pharma)

www.halal.gov.my/v4/index.php?data=ZGlyZWNoY3J5L2luZGV4X2RpcmVjdG9yeTs7Ozs=

HALAL MALAYSIA OFFICIAL PORTAL  
PORTAL RASMI HALAL MALAYSIA

ENG BM Home

## Halal Malaysia Directory

Carian:   **Verify Halal Status :**

Selamat datang ke direktori Halal Malaysia. Sila pilih negeri atau masukkan maklumat carian anda.

### SENARAI SYARIKAT

Bil	Nama & Alamat Syarikat	Tarikh Luput Sijil Halal	Syarikat
1.	<b>CHONG PARK PHARMACEUTICAL SDN BHD</b> NO.6&8,JALAN BANANG 1, KAWASAN PERINDUSTRIAN TAMAN JOHOR 81200 JOHOR BHARU, JOHOR.	30/09/2019	
2.	<b>JIN BIN (M) PHARMACEUTICAL GROUP SDN BHD</b> A45 & A50, SUSURAN TANDOP, KAWASAN PERUSAHAAN TANDOP BARU, 05400 ALOR STAR, KEDAH	30/09/2019	
3.	<b>TJ-TYT PHARMACEUTICALS (M) SDN BHD</b> NO.1 & 3, PERSIARAN PERINDUSTRIAN PENGKALAN 12,	15/07/2019	

Activate Windows  
Go to Settings to activate Windows.

**Kategori / Skim**

- Syarikat (17)
- Hotel & Resort
- Premis Makanan
- Menu Makanan
- Produk (1)
- Kosmetik (4)
- Farmaseutikal (98)
- Barang Gunaan (1)

# 4,481 company/ 154,015 product (food)

www.halal.gov.my/v4/index.php?data=ZGlyZWNo3J5L2luZGV4X2RpcmVjdG9yeTs7Ozs=

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## Halal Malaysia Directory

Carian: Please Select State Produk Makanan / Mi Verify Halal Status: food

Selamat datang ke direktori Halal Malaysia. Sila pilih negeri atau masukkan maklumat carian anda.

### SENARAI SYARIKAT

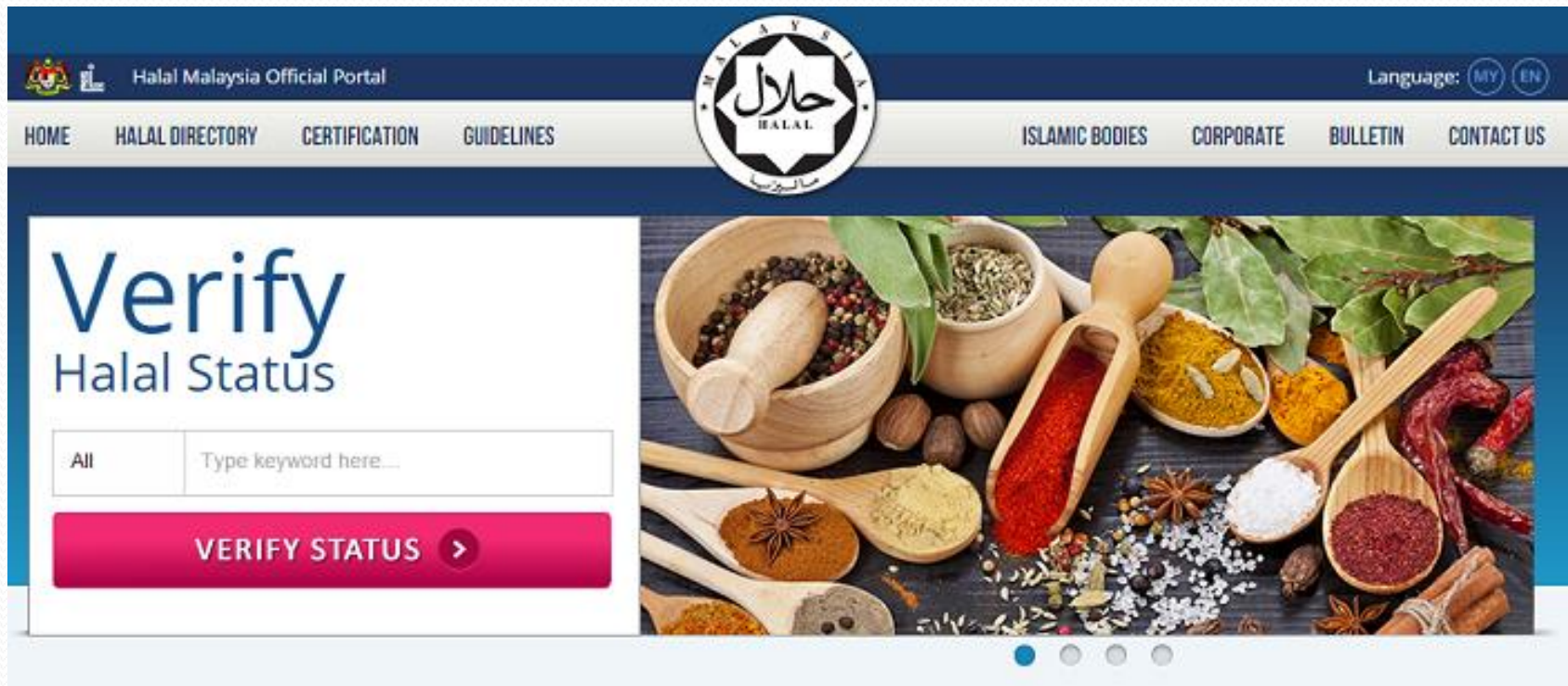
Bil	Nama & Alamat Syarikat	Tarikh Luput Sijil Halal	Syarikat
1.	<b>JEENHUAT FOODSTUFFS IND. SDN. BHD.</b> 1760, PERMATANG TINGGI, 14100 SIMPANG AMPAT, PULAU PINANG	30/04/2022	
2.	<b>GOH SIONG TEE MARINE PRODUCT SDN. BHD.</b> NO. 9, LORONG IKS SIMPANG AMPAT D, KAWASAN INDUSTRI SIMPANG AMPAT, S.P.(S), 14100 SIMPANG AMPAT, PULAU PINANG	30/04/2022	
3.	<b>KOES DAIRIES (M) SDN BHD</b> NO 15, 17 & 19, LINTANG BERINGIN SATU	15/08/2021	

Kategori / Skim

- Syarikat (4,481)
- Produk (154,015)
- International

Activate Windows  
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People check halal status for food thousand times more than pharmaceuticals ( study include 5 halal verify systems).



Almost complete ignorance from the professionals (doctors, pharmacists and other health care workers)

# Halal pharmaceuticals still limited to dietary supplements



Indications  
Ministry of health – FDA  
After long clinical trials  
and research

Claims  
Ministry of agriculture  
Limited research –  
almost no research



# Famous halal pharmaceuticals companies around the world



Oldest  
Wide range of OTC products  
Roadshow and customer  
awareness programs



# Famous halal pharmaceuticals companies around the world

**pharmaniaga**  
passion for patients

Wide range of products  
Halal pharmacy chain  
Some injections to be certified





# Famous halal pharmaceuticals companies around the world



IV preparations  
Bovine heparin imported from Brazil



# Famous halal pharmaceuticals companies around the world



Hard and soft gelatin capsules  
Toothpaste



# Famous halal pharmaceuticals companies around the world



Big R&D budget  
Halal vaccines  
Saudi-Malaysia company  
With factory in Austria



# Famous halal pharmaceuticals companies around the world



**Bosch PHARMACEUTICALS (Pvt) Ltd**  
MANUFACTURERS OF PHARMACEUTICALS SPECIALITIES



Wide range of products  
Vials – ampoules  
Some antibiotics

# Famous halal pharmaceuticals companies around the world

**BLACKMORES®**  
THE BEST OF HEALTH

Multi vitamins from Australia



# Famous halal pharmaceuticals companies around the world

Halal vitamins from USA  
online marketing



# Famous halal pharmaceuticals companies around the world

Rosemont®

The source of liquid solutions.

Halal liquid preparations  
from UK



# Famous halal pharmaceuticals companies around the world



**SIMPOR PHARMA**  
SENDIRIAN BERHAD

Halal contract manufacturing  
From Brunei  
Approved from Canada





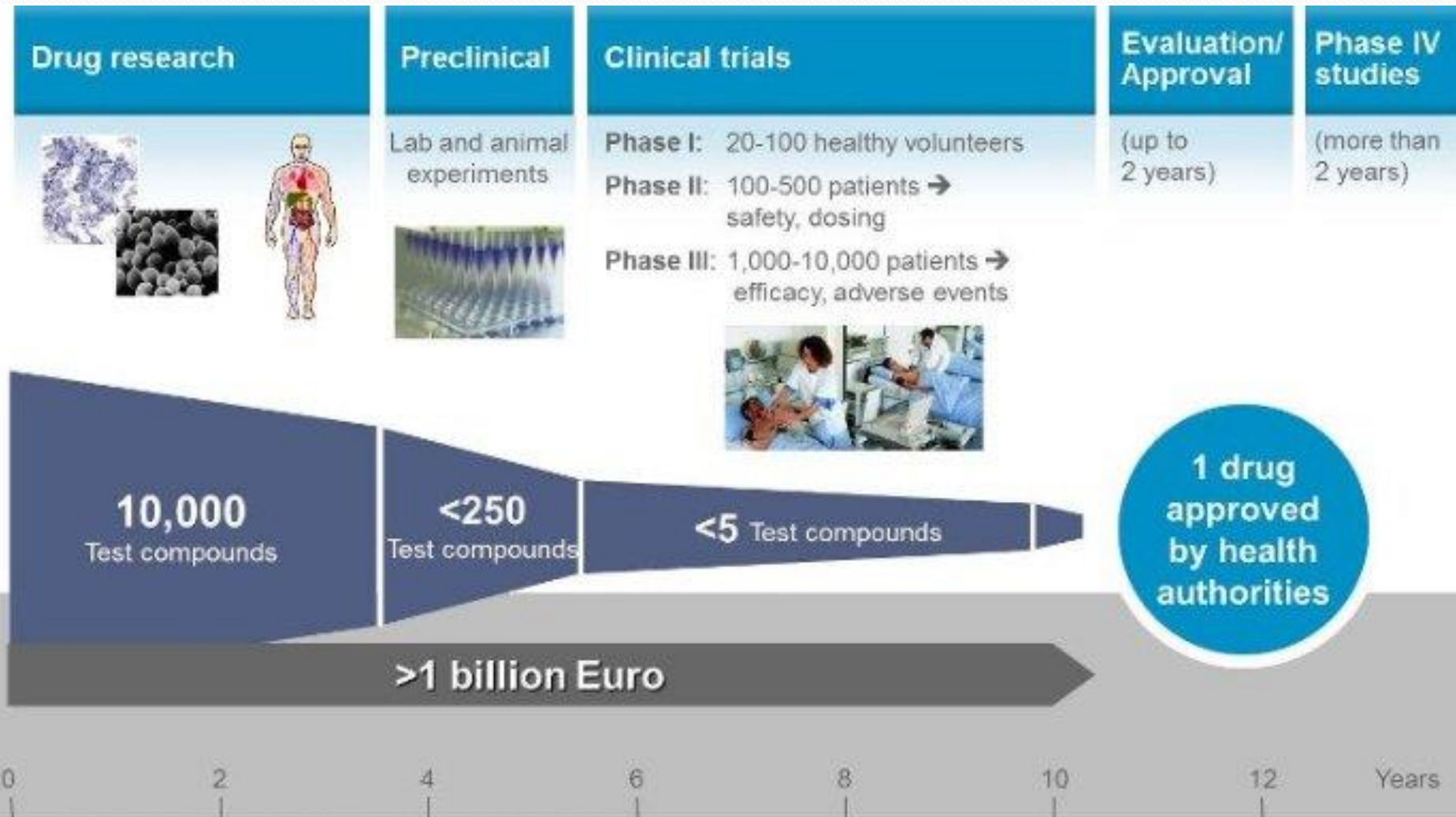
# Product development

- In business and engineering, new product development (NPD) covers the complete process of bringing a new product to market.
- New product development is described in the literature as the transformation of a market opportunity into a product available for sale.

# New-Product Development Process



# Drug discovery



Source: based on PhRMA Profile Pharmaceutical Industry 2010

**Stage 1**

Drug discovery

**10,000**  
compounds

**Stage 2**

Pre-clinical development

**250**  
compounds

**Stage 3**

Clinical development

**5**  
compounds

Regulatory approval



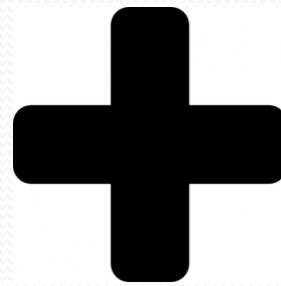
**1** compound

**Phases**

- 0 Effect on body
- I Safety in humans
- II Effectiveness at treating diseases
- III Larger scale safety and effectiveness
- IV Long term safety

# How to develop Halal pharmaceuticals?

1 – get halal certificate for herbal products and for some halal chemicals !! Easy and simple ...



# How to develop Halal pharmaceuticals?

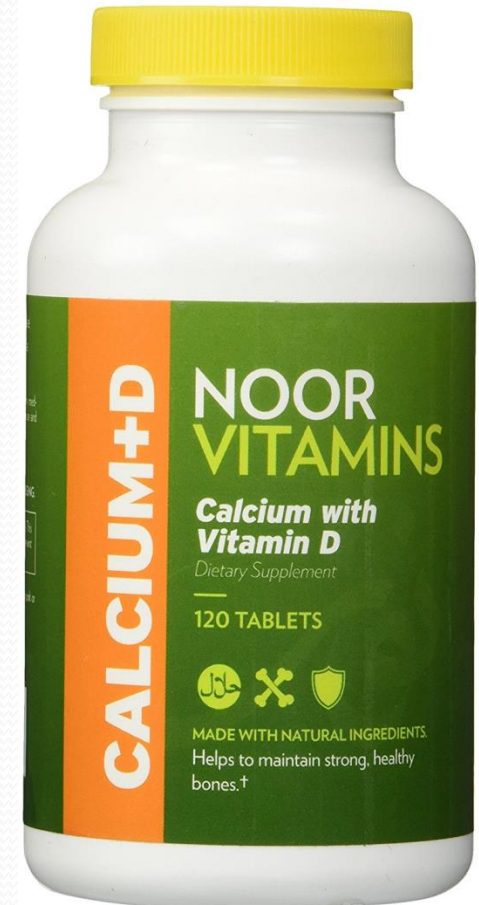
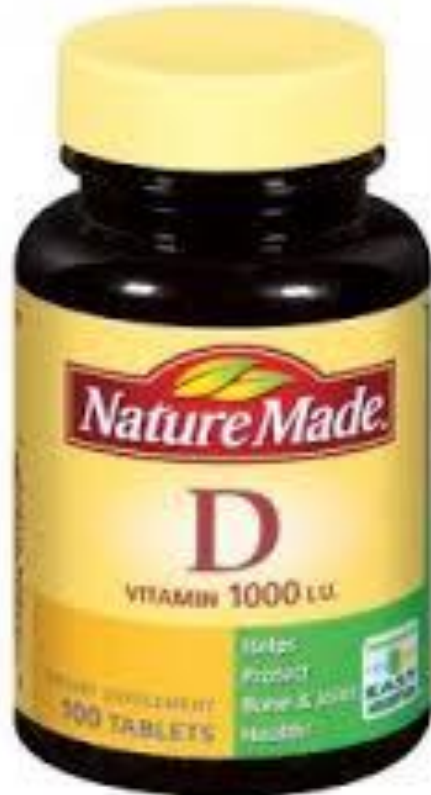
2 - Find Haram medicine which used by people and make it halal!!! The cake recipe concept.



# Sometimes changing the excipient is easy ...



Sometimes you need to change the source of the active ingredient...





Sometimes you need to change the cooking procedure + some ingredients



- Changing the culture media and process techniques is not easy.
- Culture media ingredients contains many haram and najis ingredients.
- Most of the used enzymes are not halal.

Good thing .... You can have patent for

- **Process patent**
- **Formulation patent**

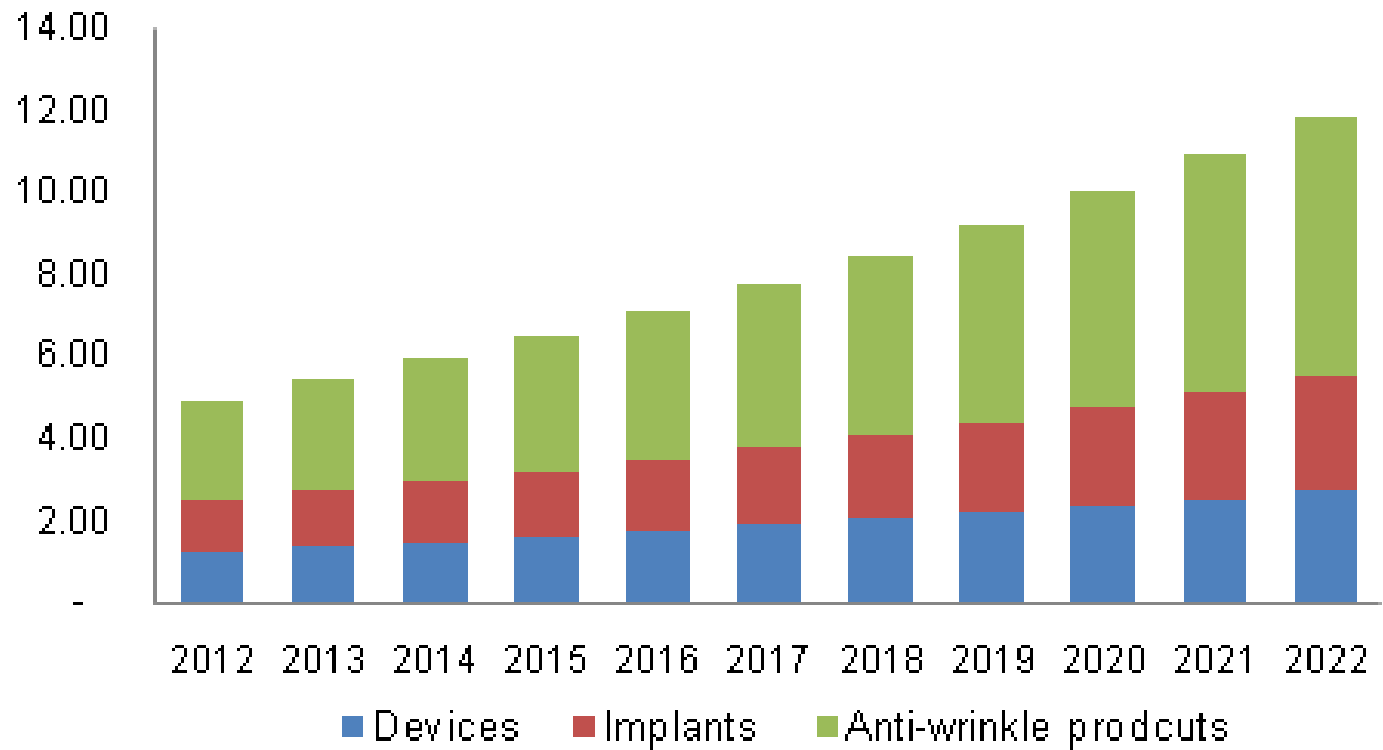


# Halal botulinum toxin (BOTOX)

- The culture media contains najis and haram materials + haram enzymes (not halal)
- Very big market and increased (estimated 3 billion \$ for Muslim countries).
- Research time and cost is Very small comparing to the profits.



## Aesthetic Medicine Market Size





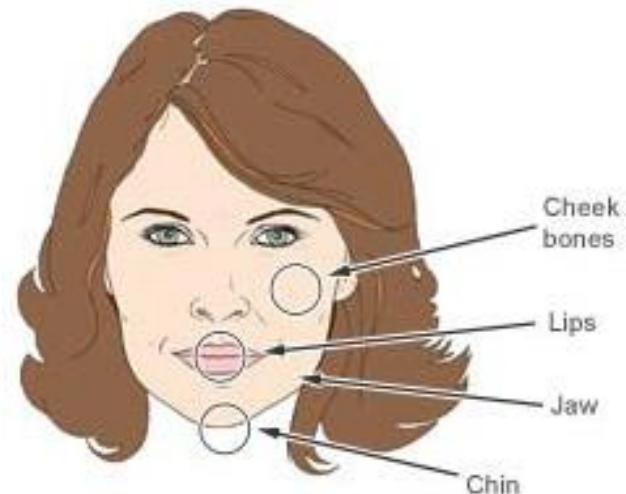
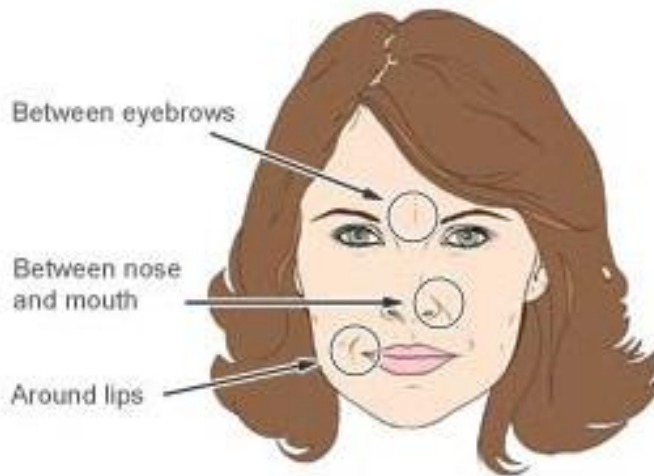
# Halal hyaluronic acid (dermal fillers)

- The culture media contains najis and haram materials + haram enzymes (not halal)
- Very big market and increased (estimated 4.5 billion \$ for Muslim countries).
- Research time and cost is Very small comparing to the profits.





Some types produced from rooster comb which can be another chance



Where fillers are used

# How to develop Halal pharmaceuticals?

3 – to do research until finding new source for the haram chemical ....no one make it until now

- There are 400 chemicals which is haram or mashbooh
- There are 400 opportunities with market size equal to 100 billion \$
- Companies can use the halal opportunities index to decide which chemical has more economical value



# Halal pharmaceuticals opportunities index

Type of medicine	Essential medicine list	Vaccine	Prescribed medicine	Dietary supplements	Cosmetics
Given marks	25	20	15	10	5
Disease morbidity rate	Very high	High	moderate	low	Not applicable
Given marks	5	4	3	2	0
Disease mortality rate	Very high	High	moderate	low	Not applicable
Given marks	5	4	3	2	0
Time needed to find halal alternative	More than 5 years	3- 4 years	2 years or less	one year or less than	Halal alternative already exist
Given marks	1	2	3	4	5
Approximate budget to find the halal alternative	More than million \$	Less than million \$	Less than 100.000\$	Less than 10.000 \$	Nothing
Given marks	1	2	3	4	5

# Halal pharmaceuticals opportunities index

- Halal pharmaceuticals priority index or Halal pharmaceuticals opportunities index first introduced in the world halal summit 2016 by Dr. Mohammed Ali Alsheikh Wace.
- The index will give 45 points (maximum) and 7 points (minimum), any medicine will get 27 points or more then it is with high priority and opportunity.
- Any medicine which gets less than 27 points will conclude that it is with low priority and low opportunity.

# Halal enoxaparin

- Enoxaparin synthesized by benzylation and alkaline depolymerization of heparin
- It is produced from porcine heparin exclusively until now
- Clexane
- Lovenox



## Halal enoxaparin

- Producing enoxaparin from bovine heparin is possible and need short research and low investment
- Heparin market for Muslim countries (690 million\$)
- Enoxaparin market for Muslim countries (2.1 billion \$)
- Both are in the essential drug list

***A BIG BIG BIG  
OPPORTUNITY***

# Halal enoxaparin

- It can be patent !!
- **Product patent or claim** (some countries)
- **Product by process patent or claim**



# More opportunities

- Halal raw materials (excipients, chemicals)
- Halal culture media company
- Halal analysis laboratories
- To sell slaughter houses byproducts to halal pharmaceuticals companies (bovine – ovine)
- And more .....

# Is it worth investment ?

	Halal pharmaceuticals	Drug discovery
Research time	1 – 3 years	7 – 12 years
Research cost	100,000 – 3,000,000 \$	70,000,000 – 200,000,000 \$
Patent	Yes	Yes
Competition	Blue ocean	Red ocean
Marketing	easy	Not easy
Is it worth?	Are you still asking?	If you have extra extra extra money go for it .... idiot



# Conclusion

- Until now we are doing halal pharmaceutical standards and theory only
- We still on the surface and we need to discover the deep halal pharmaceuticals
- To invest in halal pharmaceuticals is both financial and religious benefits



# Story





**THANK YOU**