



Anti-Aging Drink

SPIRULINA BEER

ထာဝစဉ်နုပျိုလန်းဆန်းနေစေသည့်
စပီရူလိုင်းနား ဘီယာ



Flexibility - must foster in the people the ability to look at situations in new ways to devise unique solutions

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UPM
UNIVERSITI PUTRA MALAYSIA
BERILMU BERBAKTI

IP Management strategies: Invention Disclosure Process



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Innovation & Commercialisation Centre (ICC)
Universiti Putra Malaysia

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Contents

- Overview of IP
- Importance of IP
- Invention disclosure process
- IP management
- Challenges



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It is alleged that on its completion, Shah Jahan ordered the right hand of the chief mason to be cut off so that the masterpiece could never be recreated



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Creations of the mind:

Intellectual property?

- **Inventions**
- **literary & artistic works**
- **Symbols**
- **Names**
- **Images**
- **Designs used in commerce**



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IP – 2 categories

Industrial property:

- Inventions (patents)
- Trademarks
- Industrial designs
- Geographic indications of source

© Copyright:



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IP – 2nd Category

© Copyright:

- Literary & artistic works: novels, poems & plays
- Films
- Musical works
- Artistic works such as drawings, paintings
- Photographs & sculptures
- Architectural designs



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Intellectual Property

Hidden treasurers!

Engine for future growth

Era of I Economy

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Intellectual Property



- IP an important indicator of social & economic benefits - Nation building
- Generates revenue

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IP business is the “Oil of the 21st Century”

- ❑ Flinders Technologies MD, said 50 to 80 % of Co. market value is due to IP & innovation
- ❑ Microsoft, Yahoo! & ResMed as crucial examples
- ❑ ResMed announced \$A116.5 million in revenue for the March 2003 quarter.
- ❑ Turner believes WTO's policies on IP laws will help define globalisation



Dr John Turner, Australian Business Intelligence, June 24, 2003

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Financial benefit to nation

20% OER (Malaysia average)

RM50 billion (2008)



If OER increased by 1%

500 million

If OER increased by 2%

1000 million



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Invention disclosure process

A new culture in the Univ. & PRIs!

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We work 24hrs – we publish our work, why do we need to patent our R&D findings?

Awareness on importance of IP & training on IP issues are crucial



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**Motivate
researcher
s!**

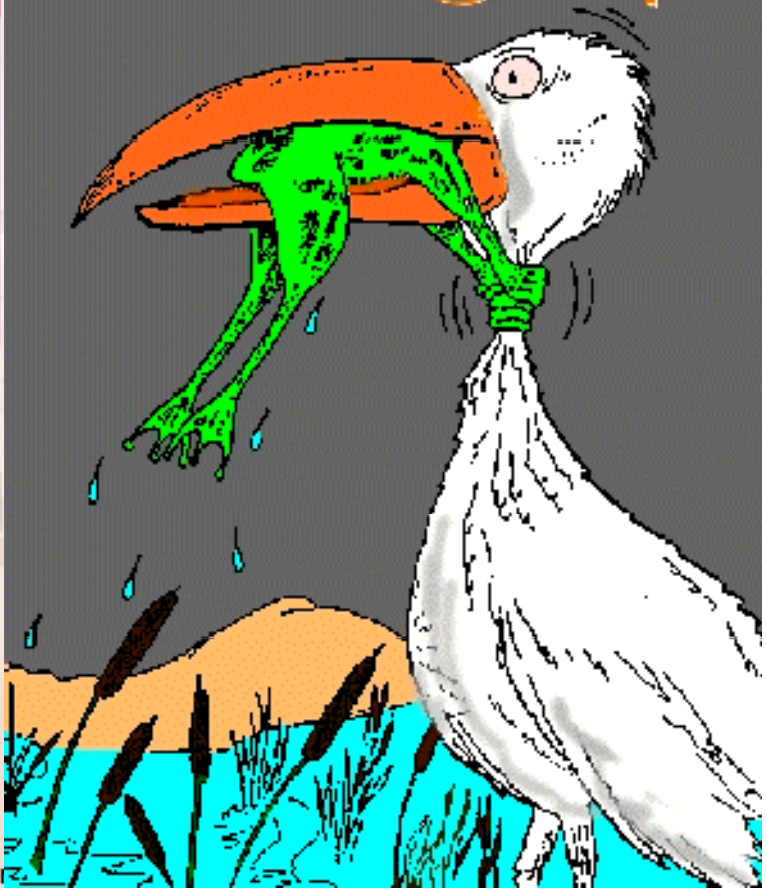


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**Nothing
is
impossible!**

**You can
do it!**

Never ever give up!



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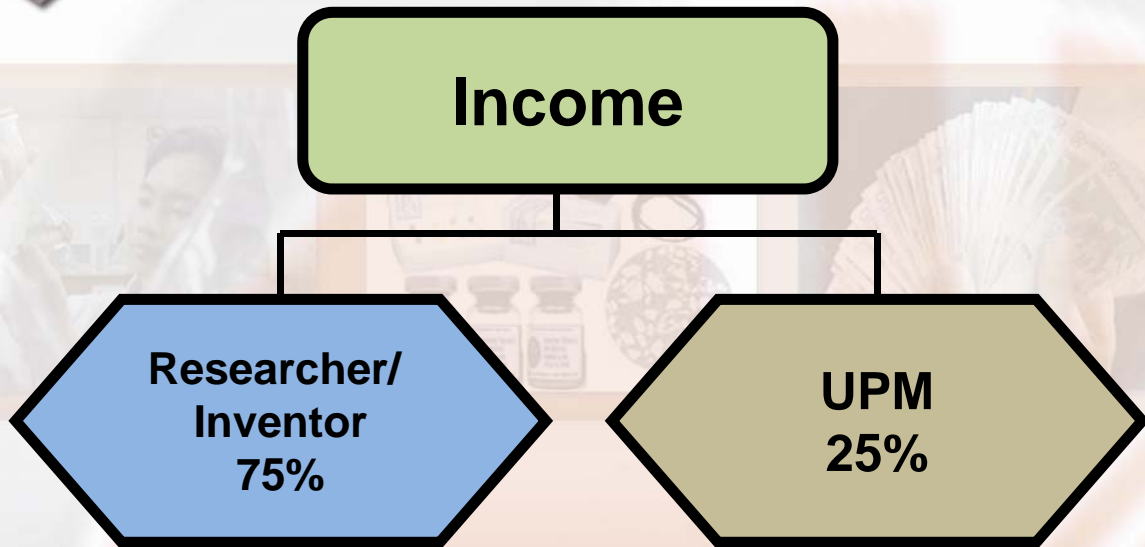
Incentives for researchers!

- RM5,000 (U\$1430) for filing patent**
- RM10,000 (U\$2860) on receiving patent certificate**

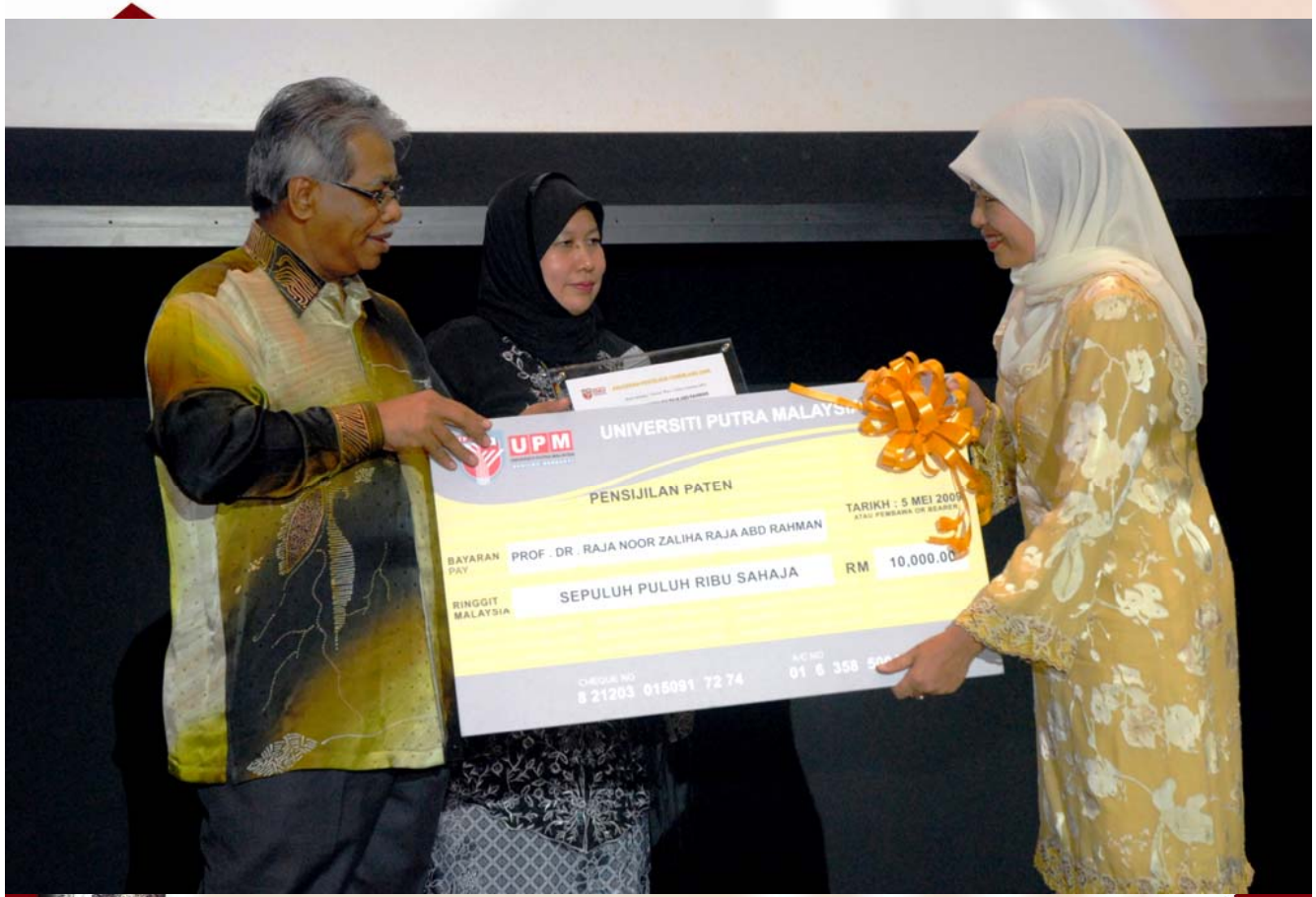
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Distribution of Income



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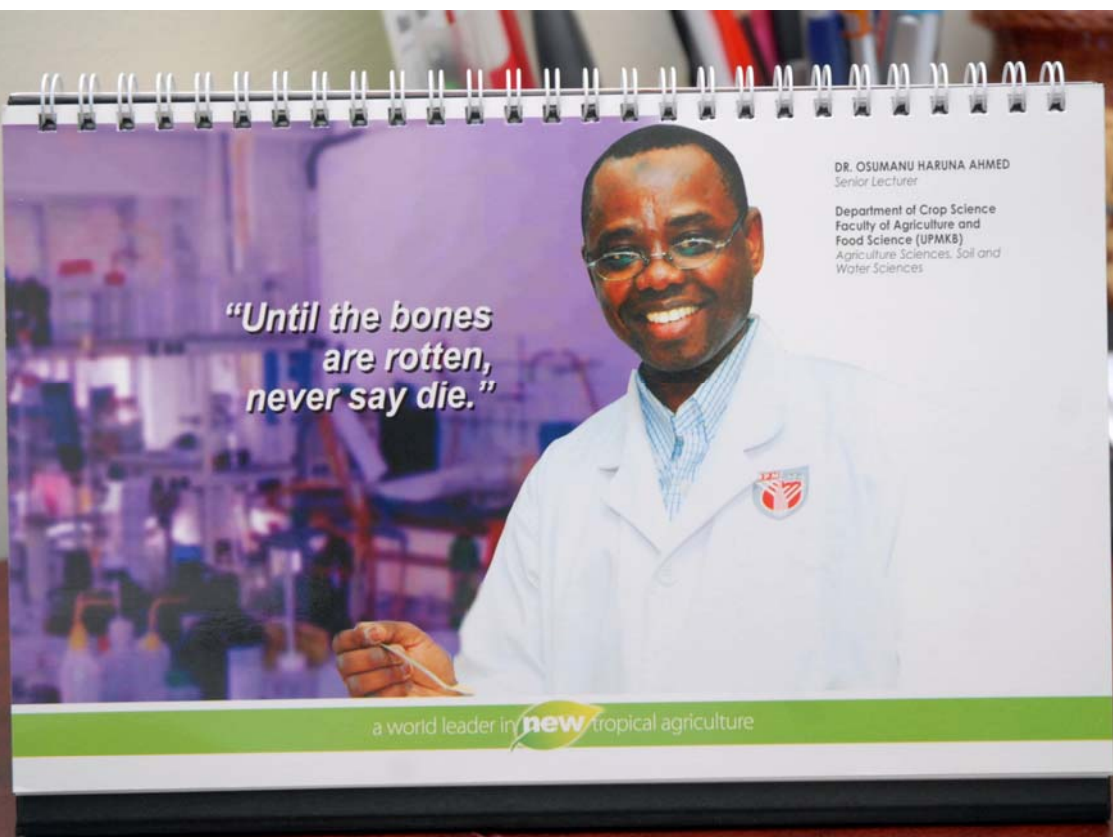
National IP Award from MyIPO – RM30,000



**Best commercialised Product
award**



Challenges are seeds for success. Complacency breeds failures



Until the bones are rotten never say die!



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**Bestowed
the honorific
title "Dato"**

S
h
a
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k
h



Also
bestowed
the title
Datuk



Awareness campaign & training in IP

Phase I - Awareness & training campaigns

Phase II – Introduce policy & guidelines

Phase III – Implementation of policy

Phase IV - Fine tuning & continuous improvement



Advanced Commercialisation Course

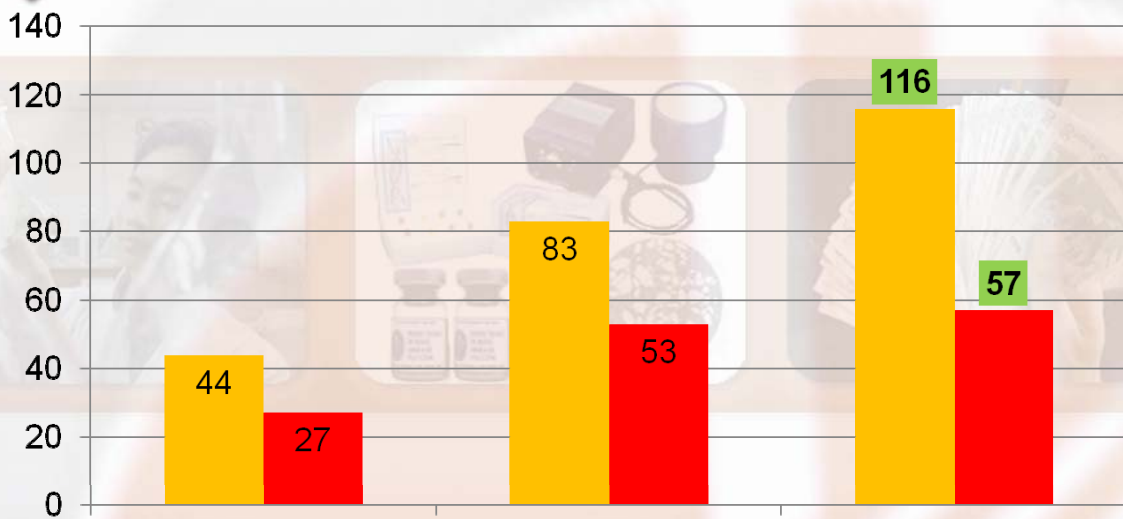
Venue : Langkawi & Cherating



4 days x 2 programme



Increase in technology disclosures & patent filing

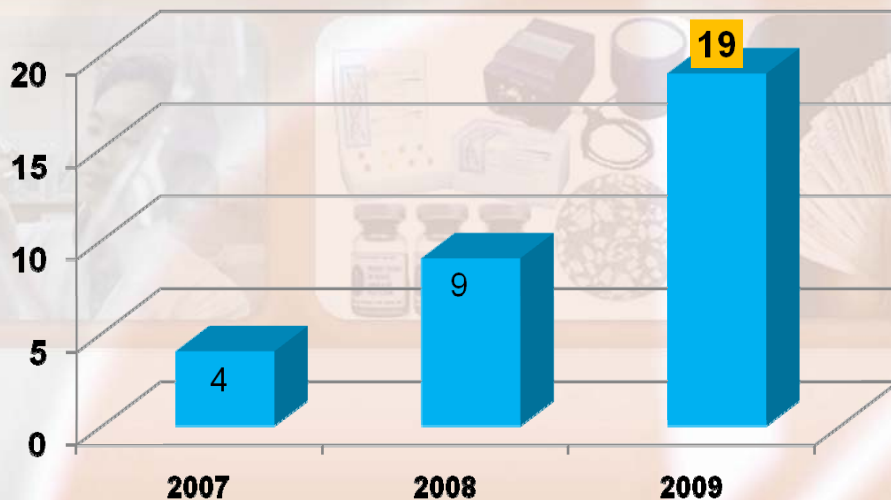


■ No. of Disclosure ■ No. of Patent Filing





PCT filing as of November 2009



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Patent 2009

Patents Granted **49**

226 Patents Pending

Filed in foreign countries **69**

- China
- European
- India
- Indonesia
- Japan
- Philippine
- Singapore
- Switzerland
- Thailand
- Taiwan
- United Kingdom
- United States
- Vietnam

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Disclosure & Evaluation of Technologies



Meeting every 2 weeks

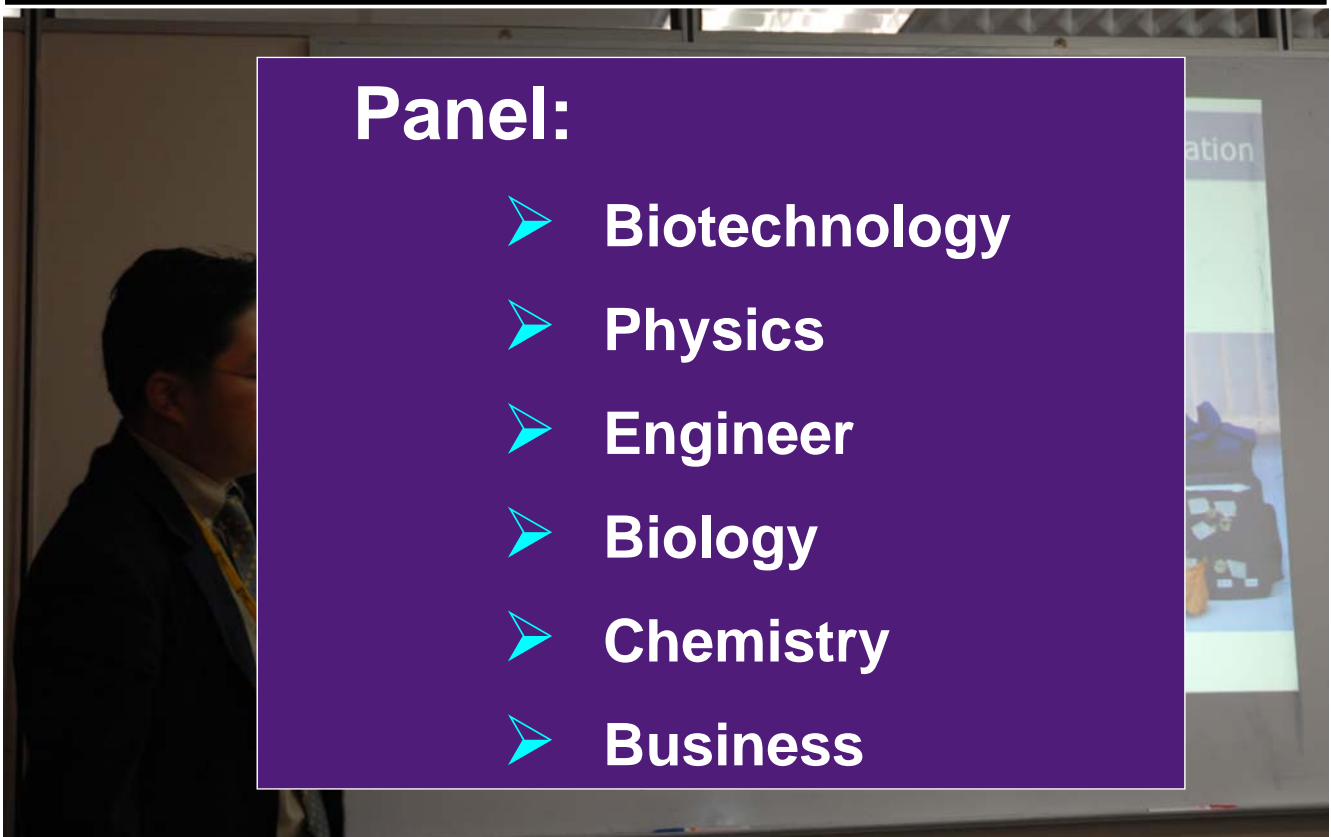
Potential Applications:

- Military and Law Enforcement**
Replaceable Armor inserts for bullet proof vest
Armor panel for vehicle or mobile unit
Panel for bunker and platform
- Aerospace Industry**
Bullet proof flight/cockpit deck interior panel
Aircraft component
- Automotive Industry**
Ballistic resistant interior panels/bumper
- Building Industry**

Meetings: 2-3

- i) Learn technology
- ii) Approve/reject patent/copyright/TS
- iii) Fine tune
- iv) Add financial aspects

Disclosure & Evaluation of technologies



Panel:

- Biotechnology
- Physics
- Engineer
- Biology
- Chemistry
- Business

Reasons for non approval:

- Published or in public domain
- No novelty 2 years ago!
- No thorough prior art search
- Poorly prepared presentation

Get patent No. within 3 months

If approved: Send to panel of legal patent filing agents (5)

SULIT (CONFIDENTIAL)

UPM/TNCPI/ICC/P01/PP/BR1



UPM
UNIVERSITI PUTRA MALAYSIA
BERSILU BERSAMAKU

INNOVATION AND COMMERCIALISATION CENTRE

Tel : 03-8947 2055 Faks : 03-8947 2059 [http:// www.icc.upm.edu.my](http://www.icc.upm.edu.my)

PATENT APPLICATION FORM

Note: You are required to read about IPR before submitting your application for approval.

Please visit the following websites:

<http://www.wipo.int/patentscope/en/patents.html>

http://www.myipo.gov.my/index.php?option=com_content&task=view&id=12&Itemid=7

Part A

Source of fund and Cluster: [✓ or/atau X]

<u>Geran Penyelidikan / Source of fund</u>	<u>Kod Projek / Project Code & Nilai geran / Grant Value (RM)</u>	<u>*Kelompok / Cluster</u>
<input type="checkbox"/> IRPA grant <input type="checkbox"/> Fundamental grant <input type="checkbox"/> Science fund <input type="checkbox"/>		<input type="checkbox"/> Agriculture <input type="checkbox"/> Food <input type="checkbox"/> Health <input type="checkbox"/> Science, Technology and <input type="checkbox"/> Engineering

9. Percentage of Income distribution and contribution credit
(Commercialization / Incentive)

INVENTORSHIP

I (We) propose to divide the invention with the listed inventor(s) in the proportion(s) specified before each signature below.

<u>Inventor (s)</u>	<u>Percentage of distribution (%)</u>	<u>Signature</u>
1.		
2.		

OWNERSHIP

<u>Owner & Co-Owner</u>	<u>*Percentage of distribution (%)</u>
1. Universiti Putra Malaysia	
2.	

*Based on agreement (if applicable): Reference:.....

Part B:

Instruction: Please visit the following website to search for prior art of your invention. Indicate your keywords used for the search in the column below. Please refer to Appendix 1(a).

<u>Databases</u>	<u>Keywords search</u>
1. United States Patent and Trademark Office (USPTO) http://www.uspto.gov/patft/index.html <input type="checkbox"/>	
2. European Patent Office (EPO) http://ep.espacenet.com/ <input type="checkbox"/>	
3. Intellectual Property Office of Singapore http://www.surfip.gov.sg/ <input type="checkbox"/>	
4. The Industrial Property Digital Library (IPDL, JPO) http://www19.ipdl.inpit.go.jp/PA1/cgi-bin/PA1INIT?1175476102765 <input type="checkbox"/>	
5. PatentScope, (WIPO) http://www.wipo.int/pctdb/en/ <input type="checkbox"/>	

Instruction: Please indicate any publication or public disclosure.

Prior Publication

***Details of public disclosure**

1. Have you described any aspect of the invention in the following:

- ✓ abstract
- ✓ journal
- ✓ article
- ✓ book chapters
- ✓ posters
- ✓ thesis
- ✓ website
- ✓ oral presentation
- ✓ discussion with third party without NDA
- ✓ Other

i) Name / title of disclosure:

.....

ii) Date published / disclosed:

.....

iii) References:

Planned Publication

***Details of planned publication**

2. Do you plan, within the next 12 months, a publication or oral presentation that discloses the invention in any way?

i) Name / title of disclosure:

ii) Actual / expected date:

iii) Countries for publication:

Instruction: Please answer questions below for technology disclosure. If you have any questions, or would like assistance in completing the form, please contact the ICC at (03) 9847 1286, or email ipr@icc.upm.edu.my.

1. TITLE OF INVENTION

Brief title that discloses what the invention does.

2. CATEGORY

What has been invented? Is it a new

- Composition matter
- Process/ Method
- Product
- Combination of existing technology
- Improvement to an existing technology
- Other Category

3. FIELD OF INVENTION

4. GENERAL DESCRIPTION

(a) Describe the invention in general. What does it do? How does it work?

(b) Indicate the advantages of this invention.

5. PRIOR ART (EXISTING TECHNOLOGY)

5. PRIOR ART (EXISTING TECHNOLOGY)

- (a) What is the closest process / product you are aware of to your invention?
Please give references.
- (b) Is there any existing technology which performs the same function in a different way?
- (c) Is there any combination of existing process / product which would be similar to your invention?

6. DETAILS OF THE INVENTION

*In order to be patentable, an invention must be **NOVEL, NOT OBVIOUS** and **USEFUL** based upon everything which was available at the time of the invention.*

i) Novelty and Non-obviousness

- (a) Please describe the unique aspects of your invention, and how it is different and/or better than the existing technologies in no. 5. What problem does the invention solve?
- (b) Describe how others have tried to solve this problem in the past?
- (c) Why do you believe the invention would NOT have been obvious to another researcher working on the same problem at the same time?

ii) Uses

- (a) Please indicate the primary applications of the invention.
- (b) Indicate the potential application of the invention in the future.
- (c) How is the invention being applied to obtain the utility described above (describe the process or method)?
- (d) Indicate potential application of the invention in other field.

7. CLAIMS OF THE INVENTION

The claims define the scope of the protection of the patent and it is the main highlight of the patent specification

- (a) Please state the main feature / factor that you have invented in your embodiment/prototype/result.
- (b) List down all other features/factor to support the main feature/factor in (a).
- (c) Are there any critical ranges of size, weight, pressure, or working condition for any parts of your invention?

8. STAGE OF DEVELOPMENT

Please check the most closely describes the current stage of your invention.

- Complete proof of concept Prototype available Ready to be commercialised Others

9. LIMITATION

9. LIMITATION

- (a) Indicate any disadvantages or limitations of the invention (If any).
- (b) What could be added to make the invention better?
- (c) Is further development of the invention now in progress or contemplated?

10. EXPERIMENTAL VERIFICATION

- (a) Please provide/attach supporting evidence to support working condition of the invention as mentioned in No. 7.
- (b) Attach sketches, drawings, photos, manuscripts, flow diagrams, graphs, and any other materials that help illustrate the invention in the embodiment.
- (c) Has the product been tested and comply with regulation / standard required?

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11. COMMERCIALISATION

Please list down any main players in the field of this technology that you are aware of.

12. OTHER SERVICES

Please list tick other services/assistance that you require.

- Fund for up scaling/prototype
- Fund for Clinical trial
- Industrial partner for commercialization
- Industrial partner for further research
- Other:.....

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Patent Protection: Appropriate Strategies & Options



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Confidentiality

- Panel members sign a non-disclosure agreement (NDA)
- Documents only distributed during meeting
- Members cannot removed documents from meeting room
- Documents are kept in a safety cabinet

No circulating of documents for approval!

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WARNING !

Your invention can be **STOLEN** by someone!

You may **LOSE** your invention that **HAS BEEN DISPLAYED IN THE PUBLIC DOMAIN**

Somebody can steal it!

Somebody waNtS IT F. O. C



To protect your invention please call ICC :
03 - 8947 2055 www.icc.upm.edu.my



IP Management

**Patent before participation in
exhibitions/seminars
& publishing**



Protect the technology!

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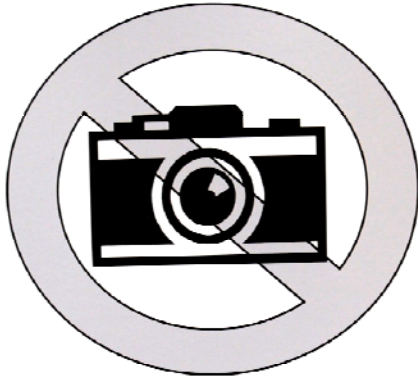
Pittsburgh Exhibition

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IP Management

NO CAMERAS



Please be advised that Cameras are NOT permitted at INPEX without authorization! Because many exhibitors feel uneasy about strangers taking pictures of their invention or display, we feel it is best to prohibit cameras or cam recorders. Only media will be permitted to have cameras or video equipment.



At Pittsburgh Exhibition

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IP Management

Non disclosure agreement :-

- **Students**
- **Evaluators**

New guidelines!



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IP Management

- On registration students assign IP to UPM
- Staff members

A staff members invention in the field of employment (regardless of time of day invented) belongs to the employer

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Joint ownership

Researchers work with friends from other institutes without formal agreement

My Univ. staff member work with his friend in another institute & the gave 100% patent rights to them although the project was owned by my Univ.

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Employment contract

Researchers joining or leaving the Univ./ PRI have to be managed well through appropriate legal documents



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IP ownership – joint research programs

Depending on the contribution

- ❖ Negotiate for full ownership
- ❖ If joint 50:50 (if possible assigned to Univ. for commercialisation)
- ❖



Sign non disclosure agreement (NDA)

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Patent – Joint patent ownership

**Solution: joint owner assign ownership to UPM
Royalty distributed to joint owner**

**Misbehaviour by co-owner – distributed share of IP
to another party without consent of joint owner**

**Cannot be sold – as joint owner “Ministry”
cannot give approval**

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Provide 1st class service

- **Credit for promotion**
- **Make it easy for researchers to patent**
- **Provide prompt professional service**
- **Commercialise IPs to generate
income for researchers**

**Synergize with research staff & private
sector to commercialize technologies**

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Costs associated with Protection & Management of Technology



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Cost Estimates Related to Patents

Cost for:

Filing patent - Local	US\$2,200 – 2,700
Substantial exam	600 - 850
Annual maintenance fee	150
PCT filing	3,500

**Rough estimate for about 300 patents filed
= US\$2 million**

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Funds for patent filing

- TMO given a budget
- Ministry of Science Technology & Innovation (MOSTI) provides funds along with project
- Can also apply for funds from MOSTI



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Revenue generation

- ☺ Main aim of TT is to contribute towards nation building and indirectly creation of wealth
- ☺ Monies can be recovered if aggressive in marketing
- ☺ One big breakthrough technology in the global market can sustain the MOT for many years



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CHALLENGES



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Challenges

- Disclosure of critical technology knowledge

Scientist very found of telling everything to everybody!



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Negotiations

❖ 1st offer RM200,000

❖ Final offer RM 4 million

+ 20% equity to researcher

+ 5% equity to UPM

+ Consultancy

Right expertise to negotiate



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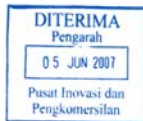
BAHAGIAN PERUNDANGAN-UNDANGAN, PEJABAT PENDAFTAR
LEGAL DIVISION, REGISTRAR OFFICE

Ruj Kami : UPM/Perundangan/5.17

Tarikh : 05 Jun 2007

Prof. Dato' Dr. Mohamed Shariff Bin Mohamed Din
Pegarah
Pusat Inovasi dan Pengkomersilan
Universiti Putra Malaysia
43400 UPM Serdang
Selangor Darul Ehsan

SEGERA



Y. Bhg Prof Dato',

Per: Kuala Lumpur High Court Civil Suit: S5-22-518-2007

Antara : [redacted]

Kami

Bersa

sebel

perintah injunksi sementara oleh Mahkamah tersebut dari mengambil sebarang langkah dan/atau sebarang langkah lanjutan untuk berurusan dengan Malaysian Vaccines & Pharmaceutical Sdn. Bhd. atau S.T. Biolife Limited atau sebarang entiti lain bagi tujuan atau melesenkan hak-hak dan kepentingan-kepentingan dalam "Intranasal Spray Vaccine of Pneumonic Pasteurellosis" atau sesuatu yang seakan-akan serupa dengan produk tersebut.

Sehubungan dengan itu, Yg. Bhg. Prof. dinasihatkan untuk menghentikan

COURT INJUNCTION

DALAM MAHKAMAH TINGGI MALAYA DI KUALA LUMPUR

PROFOUND VACCINE SDN BHD
(No. Syarikat: 568317-W)

...PLAINTIF

DAN

1. UNIVERSITI MALAYSIA TERENGGANU (DAHULUNYA DIKENALI SEBAGAI KOLEJ UNIVERSITI SAINS & TEKNOLOGI MALAYSIA)
2. UNIVERSITI PUTRA MALAYSIA

...DEFENDAN-DEFENDAN

DILHADAPAN YANG ARIE HAKIM DATO' TEE AHSING

...IAAR

Practice due diligence!

ATAS PERMOHONAN P [redacted]

dinamakan di atas **DAN SETELAH MEMBACA** Saman Dalam Kamar (*Ex-Parte*) bertarikh 21.5.2007, Afidavit yang diikrarkan oleh Mohd Shukri Bin Buyong pada 21.5.2007, dan kesemuanya difaalkan di sini **DAN SETELAH MENDENGAR** Encik

Crucial all negotiations must take place in the presence of people knowledgeable on IP

55, Bahagian Perundangan-Undangan, Pejabat Pendaftar, Universiti Putra Malaysia, 43400 UPM Serdang, Selangor Darul Ehsan
☎ 603 8946 6172 ☎ 603 8947 2046 ☎ http://www.admin.upm.edu.my

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Challenges

- ❖ **Identifying Patents for PCT filing** – 18 mts grace period for national filing - not sufficient time for commercialisation status indication
- ❖ **Poorly written patent claims – too narrow & specific** – patent agents not doing their job



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Follow up with patent agents to ensure well written patents



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Up scaling of technologies

- ❖ Many patents are lab-scale technologies product / process; companies not convinced to invest
- ❖ Get more funds & match make with Co. to upscale the technology



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All smiles for the photo album



Minister – MOSTI visited the following week

VC & DVC being briefed by Nasmec Sdn Bhd on joint technofund project with UPM in Dengkil

Pilot scale Production of CQ10



US\$1.4 Million



Awareness

- ❖ Keep communications open so that every one know what's going on
- ❖ Involve the policy makers and Co. in the awareness campaigns
- ❖ Awareness campaigns – Phase II
- ❖ Awareness campaigns – Phase III



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Three essential players in innovations

1st Player



Creative Geniuses

- Develop ideas
- Generate value added innovations



BUDAYA KERJA
KREATIF & INOVATIF

2nd essential player

Innovation Champions

- We promote, encourage, & support innovation
- We help creative people overcome obstacles



DVC (Research & Innovation) & team members

KERJA INOVATIF

3rd essential player

Innovation Leadership

- There is no innovation without leadership

My expectation is to see a world class university that will favour innovation.

I want UPM to be a world class university

If policies are restrictive making it impossible to test new ideas, then there won't be many new ideas & innovations



KERJA INOVATIF



Think innovatively to be innovative

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SUPER DEALS

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Over 70 Routes Across Asia

Voted #1 Airline Brand in Asia's Top 1,000 Brand Survey

←

NOW CAN FLY

9

Bohoma Stu-Thyi

Terima kasih