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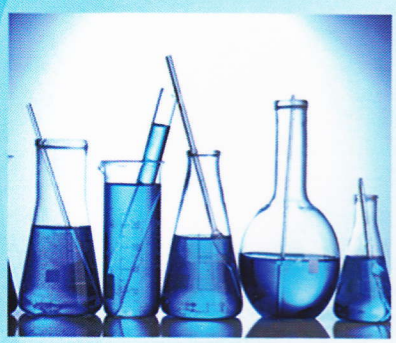
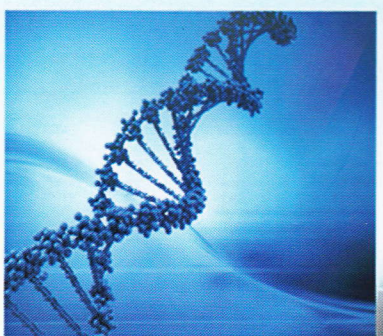
CIA BIOTECH

NATIONAL CONFERENCE ON INDUSTRY-ACADEMIA INITIATIVES IN BIOTECHNOLOGY

"BRIDGING ECONOMY AND THE BIOTECHNOLOGICAL DIVIDE"





5TH - 7TH DECEMBER 2013
EQUATORIAL CAMERON HIGHLANDS, PAHANG

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PROGRAMME AND ABSTRACT BOOK

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IRAKI SDN.BHD

Keynote Speaker

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Plenary Speakers

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SESSION 1A (PARALLEL)

Venue: Cameron Ball Room

Chairman: Assoc. Prof. Dr. Md Rezaul Karim

11:10-11:40	**INVITED LECTURE 1**	
	Assoc. Prof. Dr. Solachuddin Jauhari Arief Ichwan	
	"Halal Issues in the Mammalian Cell Culture for Recombinant Protein Production"	
11:40-12:00	CIA-0007	Non-edible part of *Solanum melongena*- Novel Source of Acetylcholinesterase Inhibition: Molecular Docking and *in vitro* Enzymatic Studies
12:00-12:20	CIA-0059	Antidiabetic and Antioxidant Properties of Brown Algae *Padina australis* H. Polyphenols
12:20-12:40	CIA-0061	Comparison of Bacteria from Landfill Soil and Leachate Based on Gram Characteristic and Enzyme Production in Jabor Landfill, Pahang, Malaysia
12:40-01:00	CIA-0016	Biofuel Production from Microalgae: A Review
01:00-14:00	**LUNCH BREAK**	

SESSION 1A (PARALLEL)

Chairman: Dr. Tan Suat Hian

14:00-14:30	**INVITED LECTURE 3**	
	Dr. Md. Yusof Husin	
	"Industry-Academia Biotechnology Divide - An Industrialist's View"	
14:30-14:50	CIA-0126	Fresh and Cooked Okra (*Hibiscus Esculentus* L.) Pod Extract Demonstrate Antiamylolytic Activity

Conference on Industry-Academia Joint Initiatives in Biotechnology
(CIA: Biotech13), 5 – 7 December 2013

Halal Issues in the Mammalian Cell Culture for Recombinant Protein Production

Dr. Solachuddin Jauhari Arief Ichwan,
Department of Basic Medical Science, Kulliyyah of Dentistry,
Human Molecular Cellular Biology Research Unit,
Integrated Centre of Research and Animal Care and Use (HMCB-ICRACU)
International Islamic University Malaysia.

Abstract - Awareness and interest in *halal* products has significantly increased among muslim and non-muslim countries. Biopharmaceutical products including recombinant therapeutic proteins contribute to a considerable percentage in the worth of the overall global *halal* industry, which is said to be US$ 2.3 trillion. The number and demand for approved biopharmaceutical products produced from mammalian cell culture methods such as vaccines, monoclonal antibodies, antibodies, hormones, and other therapeutic proteins are increasing worldwide. The mammalian cell culture technology has been known to be perfectly suited to the production of recombinant therapeutic proteins. Mammalian cell culture is a general term used for the isolation of the cells of a mammalian from specific tissues further cultured and reproduced in an artificial growth media. The overall process in the recombinant protein synthesis using mammalian cell culture involves the use ingredients or materials that may be questioned from the perspective of *halal* procedures that make the product cannot fulfill the requirements of *halal* pharmaceuticals. This review will discuss the application of mammalian cell culture bioprocesses in recombinant biopharmaceutical protein production with focus on the *halal*-compliance status of the materials and methods.