



KRW2016

KAHS Research Week 2016

**1st Allied Health
Scientific Colloquium
(AHSC) 2016** in conjunction with

*“Enhancing
Academic and
Research Quality”*

November 21 – 25, 2016
21 – 25 Safar 1438H

Kulliyyah of Allied Health Sciences
IIUM Kuantan Campus, Pahang

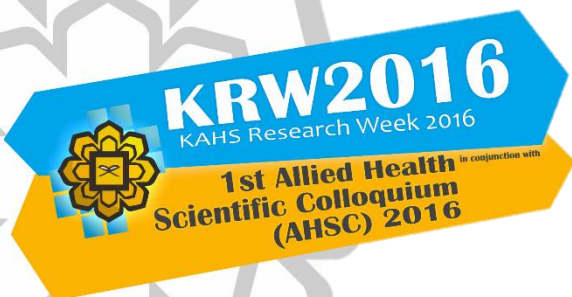
**PROGRAMME
&
ABSTRACT
BOOK**



KAHS RESEARCH WEEK (KRW)
in conjunction with

APPRECIATION

The Kulliyyah of Allied Health Sciences expresses its sincere gratitude and appreciation to all parties and many individuals who have contributed towards the success of the 2nd KAHS Research Week 2016 and the 1st Allied Health Scientific Colloquium 2016.



All rights reserved.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior permission of the Organizing Committee, the 2nd KAHS Research Week 2016 in conjunction with the 1st Allied Health Scientific Colloquium 2016, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia, Kuantan Campus.

Published by:

Kulliyyah of Allied Health Sciences
International Islamic University Malaysia
Kuantan Campus
Jalan Sultan Ahmad Shah
Bandar Indera Mahkota
25200 Kuantan, Pahang, MALAYSIA
Tel: +60 9 571 6400
Fax: +60 9 571 6776
Website: www.iium.edu.my/kahs

Disclaimer: The author is wholly responsible for the accuracy of the abstract. The Organizing Committee cannot take responsibility for the specific accuracy of the details of the abstract contents.

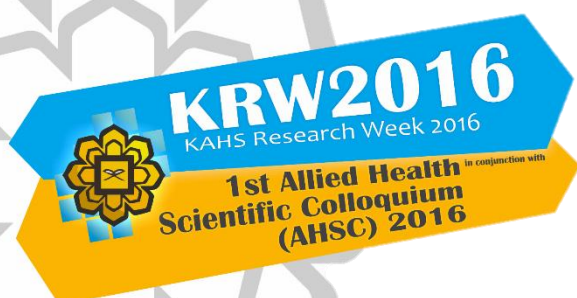


TABLE OF CONTENTS

	Page
APPRECIATION	1
FOREWORD	7
ORGANIZING COMMITTEE	8
REVIEWERS AND ASSESSORS	9
ABOUT	11
PROGRAMME SCHEDULE	14
SPEAKERS AND FACILITATORS PROFILE	
Dato' Sri Dr. Mushrifah Idris	21
Dr. Ahmad Aidil Arafat Dzulkarnain	22
Dr. Zainul Ibrahim Zainuddin	23
Dato' Dr. Hj. Ridzwan Bin Hashim	24
Dr. Rozlin Abd Rahman	26
Mohd Hafidz Ithnin	26
Nadia Hanis Abdul Samat	27
Dr. Muhammad Ibrahim	27
Dr. Mohd. Arifin Kaderi	28
Fairuz Nadira Zainal	28
TRADE EXHIBITORS	29
KEYNOTE 01 Exploring Natural Resources for The Advancement of Sustainable Research and Development	32
KEYNOTE 02 Research Networking	33
KEYNOTE 03 Integration and Islamisation in Allied Health Disciplines	34
KEYNOTE 04 Driving Innovation and Ideas	35
ABSTRACT ID AND PRESENTER	37
Antinociceptive Activity of Methanolic Extract of <i>Melastoma malabathricum</i> L. Leaves and Mechanisms of Action in Experimental Animals	38
Sugar Craving and Sugar Intake Pattern among Malay Adults	39
Application of Material Filter for Scatter Correction in Planar Imaging of Thyroid with Tc-99m: Phantom Study	40
Modified LogMAR Chart: New Insight of Vision Chart	41
Investigation on Common Errors Made by Audiology Students during Clinical Training	42
Performance of Computed Radiography and Direct Radiography:	43
Dose Containment and Image Quality	43
Modified LogMAR Chart: Can We Make It Real?	44
Comparison between Cold Temperature ($\leq 4^{\circ}\text{C}$) and Room Temperature ($\approx 25^{\circ}\text{C}$) Mediated Synthesis for Putrescine-Sulphur Compound	45
Development of a Bahasa Melayu Version of Ocular Surface Disease Index (OSDI)	46
Psychosocial Impact of Hearing Loss on Hearing-Impaired Patients and Their Spouses	47
Monolayer Culture Expansion of Annulus Fibrosus Cells for Intervertebral Disc Regeneration	48
Cancer Chemoprevention Study of <i>Luffa Aegyptiaca</i> Seed Extract on Human Breast Cancer Cell Lines (MCF-7)	49

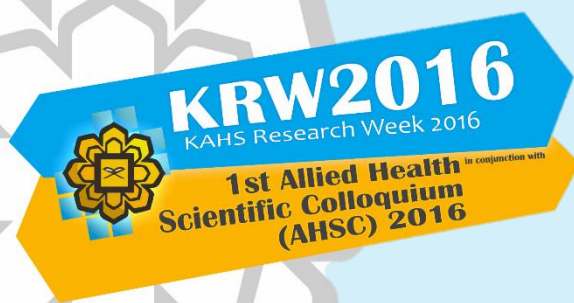
In Vitro and In Vivo Non-viral SRY (Sex Determining Region Y)-Box 9 (SOX9) and Telomerase Reverse Transcriptase (TERT) Genes Transfer in Chondrocytes: Work in Progress.....	50
Macrominerals and Their Correlations with Ash, Electrical Conductivity and PH of Malaysian Trigona and Tualang Bee Honey	51
Circulating and Salivary microRNA Expression Analysis in Nasopharyngeal Carcinoma in East Coast Region of Peninsular Malaysia	52
DNA-Based Typing of HLA-A and Profiling of RET Gene Polymorphisms for Identification of Genetic Susceptibility Factor in Nasopharyngeal Carcinoma in East Coast Region of Peninsular Malaysia	53
A Review on Radiation Effects towards Cell Culture	54
Elderly Perception on Their Dietary Practices and Prophetic Foods Intake: Preliminary Findings	55
Understanding of Anti-Cancer Properties of Neolamarckia cadamba Leaves Extract on Breast Cancer Cell.....	56
Reflective Approaches in Medical Imaging Education:.....	57
An Initial Review	57
Effects of Eurycoma longifolia (TAF 273) on Oestrous Cycle and Reproductive Hormones of Normal Rats During 14-days Treatment	58
The Challenges of Maternal Health Services Utilization and Prevention of Maternal Mortality in Northern Nigeria: Community's Perspective in Zamfara State	59
The Potential of Nigella sativa and Thymoquinone in Salvaging the Embryo from Effects of Toxic Paternal Exposure	60
Characterising Textual Memorization of Brain Structure Using Fractal Analysis.....	61
Animal Studies on Fertility Enhancing Properties of Plants in Malaysia:	62
A Review of the Past 17 Years.....	62
Conceptualising the Criteria of the Islamic Personality traits for Muslim Medical Imaging Practitioners	63
Structural Changes and Molecular Mechanisms of Bone Remodelling in the Tibial Subchondral Bone Plate and Trabecular Bone during the Development of Osteoarthritis: Method Optimization.....	64
Establishment of Growth Kinetics Profile and Measurement of Sulphated Glycosaminoglycans (sGAG) Production in Monolayer Cultured Chondrocytes Following Qur'anic Recitation Exposure.....	65
Aviation-Based Teamwork and Communication Training Program in Healthcare Settings: A Systemic Review	66
Occurrence of Gastrointestinal Helminths Infection of Goats Isolated from a Farm in Pahang	67
Optimization of Signalling Biomarkers in Detecting Male Infertility	68
Epidemiology of Nasopharyngeal Carcinoma (NPC) in Pahang, Malaysia.....	69
Anticancer Effects of Eurycoma longifolia, Nigella sativa and Hibiscus sabdariffa on Ovarian Cancer Cells	70
Non-Invasive Prenatal Testing Using Cell-Free Fetal DNA from Maternal Plasma: A Review	71
Systems Thinking Approach to 2013 Genting Highlands Bus Crash on Technical Document Requirements and Standardised Operating Procedure for Transportation Safety	72
Antioxidant Characterization of Soft Jelly Prepared from Baccaurea angulata Fruit and Trigona Bee Honey Using Response Surface Methodology	73

The Nutritional Composition of Human Milk and Dietary Status of Nursing Mothers in Kuantan, Pahang.....	74
Early Response in Antibacterial Activity of Orthopaedic Metal Implant Coated with Silver Composite for Future Osteomyelitis Treatment: Preliminary Results	75
Histology Staining On In Vitro 3D Poly(Lactic-Co-Glycolic Acid) Seeded With Annulus Fibrosus, Nucleus Pulposus, and a Combination of Annulus Fibrosus: Nucleus Pulposus (1:1) Cells With and Without Fibrin Scaffold.....	76
Enhancing Effects of Trichosanthes cucumerina extracts on Adipogenesis, Adipolysis and Glucose Uptake in 3T3-L1 Adipocytes.....	77
Collagen I and Collagen II Immunohistochemistry Analyses On In Vitro 3D Poly(Lactic-Co-Glycolic Acid) Seeded With Intervertebral Disc Cells With and Without Fibrin Scaffold	78
Anaemia Prevalence and Its Predictors among Children Aged 6 to 59 Months in a Pastoralist and Agro Pastoralist Community of Somali Region, Eastern Ethiopia	79
Undernutrition Prevalence and Its Determinants among Children below Five Years of Age in a Pastoralist Community of Somali Region, Eastern Ethiopia	80
Knowledge, Attitude and Practice of Mothers/Caregivers on Infant and Young Child Feeding, In Shabelle Zone of Somali Region, Eastern Ethiopia: A Cross Sectional Study	81
The Effect of Three Combination of Honey on Total Phenolic Content by Using Response Surface Methodology.	82
Antihyperglycemic Activities of Purified Protein Containing Adiponectin from Abdominal Adipose Tissues of Halal Meat on the Streptozotocin-Induced Diabetic Rats	83
The Antioxidant and Sensory Characteristics of Jellies made from Musa paradisiaca and Trigona sp honey	84
An overview of the Islamic Legal Maxim Vis-A-Vis Cartilage Tissue Engineering Experimentation.	85
YB-1 Gene Expression in A375 Malignant Melanoma Cells	87
Screening the influencing factors of gentamicin-N. sativa oil emulsions (GNE) characteristic using Plackett-Burmann design (PBD)	88



KRW2016
KAHS Research Week 2016

1st Allied Health
Scientific Colloquium
(AHSC) 2016



Foreword

FOREWORD

The Organizing Committee

Assalāmua'laikum Warahmatullāhi Wabarakātuh,

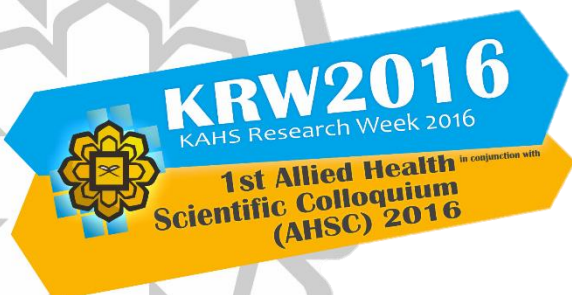
Welcome to the 2nd Kulliyyah of Allied Health Sciences (KAHS) Research Week (KRW) 2016 in conjunction with the 1st Allied Health Scientific Colloquium (AHSC) 2016 where we are once again celebrating the scholarly tradition in the forms of knowledge exploration and discourse. *Alhamdulillah* and congratulation to everyone for the organization of the event. The 2nd KAHS Research Week 2016 and the 1st AHSC 2016 shall provide an avenue for discussion, knowledge sharing and collaboration between all the Kulliyyah members in the areas related to allied health sciences. It is hoped that constructive comments and/or suggestions will help enhance the academic and research quality in the Kulliyyah. We pray to The Almighty *Allah subhānahu wa ta'āla* to bestow His wisdom upon us to use our potential and mental faculties at the best possible level with higher level of *Imān*.

Thank you. Have a great session.

Wassalām.

2nd KAHS Research Week 2016
in conjunction with
1st Allied Health Scientific Colloquium 2016
Enhancing Academic and Research Quality

November 21 – 25, 2016 | 21 – 25 Safar 1438H
Kulliyyah of Allied Health Sciences
International Islamic University Malaysia
Kuantan Campus, Pahang



ORGANIZING COMMITTEE

Patron

Dr. Wan Azdie Mohd. Abu Bakar

Advisors

Dr. Mohammad Syaiful Bahari Abdull Rasad & Dr. Mohd Arifin Kaderi

Co-Chairs

Dr. Mohamed Arshad Mohamed Sideek & Dr. Munirah Sha'ban

Vice-Chair

Dr. Saiful Adli Jamaluddin

Secretariat

Dr. Suriati Sidek (Coordinator)

Sr. Fatin Adira Ibrahim

Sr. Elizawatty Ishak

Sr. Habibah Hassan

Sr. Shakirah Razali

Br. Muhammad Aa'zamuddin Ahmad Radzi

Treasurer

Br. Muhammad Azmi Ibrahim

Publicity

Dr. Ahmad Fahmi Harun @ Ismail (Coordinator)

Br. Anugerah Budipratama Adina

Registration

Nur Shafika Mohd Sauffi (Coordinator)

Sr. Nor Intan Fazleen Zulkefli

Sr. Rosyafirah Hashim

Sr. Nur Farhana Mat Nawi

Scientific

Dr. Sayed Inayatullah Shah (Coordinator)

Dr. Muhammad Ibrahim

Dr. Zaitunnatakhin Zamli

Dr. Mohd. Zulfaezal Che Azemin

Dr. Marina L. Alisaputri @ Marina Lamri

Br. Mohammad Amjad Khan

Br. Azmir Ahmad

Hospitality

Dr. Mohd Shukri Baba (Coordinator)

Sr. Nur Aizura Mat Alewi

Sr. Ainin Azwani

Sr. Wardah Yasin

Publication

Dr. Muhammad Muzaffar Ali Khan Khattak (Coordinator)

Programme

Dr. Saiful Adli Jamaluddin (VC cum Coordinator)

Dr. Muhamad Ashraf Bin Rostam

Dr. Norsyuhada Binti Alias

Sr. Norain Zainudin

Sr. Nur 'Ain Fathanah Mohd. Puzi

Preparation and Technical

Br. Abdul Fattah Ibrahim (Coordinator)

Br. Mohd Haziezan Hassan

Br. Khamzah Jalasi

Br. Mohd Nur Nasyriq Anuar

Vendor

Dr. Zafri Azran Abdul Majid (Coordinator)

Br. Mohd Amin Marwan Mohamad

Special Task

Br. Muhammad Shaqif Syed Jamaludin (Coordinator)

Sr. Noorhidayah Md Nazir

Sr. Tengku Zulaila Hasma Binti Tengku Zam Zam

Sr. Norfazilah Mohd Rafiai

Br. Muhammad Azri Ifwat Mohamed Amin

REVIEWERS AND ASSESSORS

List of contributors

Abstract reviewers

Assoc. Prof. Dr Suzanah Abdul Rahman
 Assoc. Prof. Dr. Faudziah Abdul Manan
 Dr. Norsham Ahmad
 Dr. Ezailina Badarudin
 Dr. Mardhiah Mohamed
 Dr. Intan Azura Shahdan
 Dr. Norazsida Ramli
 Dr. Rozlin Abdul Rahman
 Dr. Norsyuhada Alias
 Dr. Mohd. Ashraff bin Rostam
 Dr. Hanani Mohd. Yusof
 Dr. Ahmad Fahmi bin Harun
 Dr. Radiah Abdul Ghani
 Dr. Zaitunnatakhin Zamli
 Dr. Nor Azwani Mohd Shukri
 Dr. Hanapi Mat Jusoh
 Dr. Muhammad Ibrahim
 Dr. Suriati Sidek
 Sr Liyana Musa
 Sr Nur Nadiah
 Dr. Noraidah Ismail
 Dr. Saiful Adli Jamaluddin
 Dr. Sayed Inayatullah Shah

Oral and poster assessors

Prof. Dato' Dr. Hj. Ridzwan Hashim
 Assoc. Prof. Dr. Suzanah Abdul Rahman
 Dr. Norafiza Zainuddin
 Dr. Intan Azura Shahdan
 Dr. Norazsida Ramli
 Dr. Rozlin Abdul Rahman
 Dr. Norsyuhada Alias
 Dr. Hanani Mohd. Yusof
 Dr. Radiah Abdul Ghani
 Dr. Mohd Affendi Mohd Shafri
 Dr. Mohamed Arshad Sideek
 Dr. Munirah Sha'ban
 Dr. Nor Azlina A. Rahman
 Dr. Suhana Mamat
 Dr. Mohammad Syaiful Bahari Abdull Rasad
 Dr. Mohd Zulfaezal Che Azemin
 Dr. Norsham Ahmad
 Dr. Nor Azwani Mohd Shukri
 Dr. Suriati Sidek
 Dr. Noraidah Ismail
 Dr. Saiful Adli Jamaluddin
 Dr. Soo-Foon Moey
 Dr. Sarah Rahmat
 Dr. Md Muziman Syah Md Mustafa
 Mdm. Halimatussa'diah Ahmad Radzi
 Br. Mohd Zamzuri Che Daud
 Dr. Nor Saadah Md. Azahri
 Dr. Mohd Arifin Kaderi
 Dr. Ahmad Fahmi Bin Harun
 Dr. Muhamad Ashraf Bin Rostam
 Dr. Hanapi Mat Jusoh
 Br. Mohd Zamzuri Che Daud
 Dr. Nor Saadah Md. Azahri

A Review on Radiation Effects towards Cell Culture

Nur Farhana Mat Nawi¹, Zainul Ibrahim Zainuddin^{2,} & Munirah Sha'ban¹*

¹Department of Biomedical Science, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia

² Department of Diagnostic Imaging and Radiotherapy, Kulliyyah of Allied Health Sciences, International Islamic University Malaysia

ABSTRACT

Effects of radiation on tissues and organs are well documented. However recently, radiation was used as an evaluation tool to assess newly formed engineered tissue reconstruction and regeneration. This raises questions on the positive application of radiation, amidst the usual discussions pertaining to the risks of radiation. Furthermore, the effects of radiation have yet to be established in primary cell culture. The objective of this review is to identify and evaluate previous works that examined the possible effects of radiation on cells. Emphasis is placed upon the effects of radiation on primary cell cultures in tissue engineering (TE). The SCOPUS databases were searched for articles published from 2001 to 2016. "Radiation" and "cell culture" were used as search terms either in the title, abstract or keywords of the articles. Thematic analysis was performed on the 5031 retrieved articles. Filtering for "radiation effects" in the title, 4139 articles were identified. Within these results the key search term was further narrowed down to "tissue engineering area". 1164 articles were identified which were then subjected to key search term within "primary cell culture". A total of 334 articles were abridged that were subjected to further thematic classifications. Within these classifications, 291 articles were summarized to fulfil the objectives of the review. The results show a certain trend towards the incompatible effect of radiation on primary cell culture. Work is in progress in filtering the keywords further to narrow the scope to radiation effects on chondrocytes in the title, abstract or keywords of the articles. This review will present the possible effects of radiation on primary cell culture. It is hoped that this review will be able to outline the current knowledge on the effects of radiation on primary cell cultures and to improve the understanding of those effects on cells in general.

KEYWORDS: Radiation, Primary Cell Culture, Growth, Radiation Effects, Review

*CORRESPONDENCE: nurfarhanafara38@gmail.com, zainul@iium.edu.my