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# CONFERENCE PROCEEDINGS

## BOOK OF ABSTRACTS MMHS-2019

**International Conference on  
“Medical, Medicine & Health Sciences”  
(MMHS-2019), Singapore**



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# **Book of Abstracts Proceeding**

**International Conference on  
“Medical, Medicine & Health Sciences”  
(MMHS-2019)  
Singapore**

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(MMHS-2019)”**

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**International Conference on  
“Medical, Medicine & Health Sciences”**

**Venue: Grand Pacific Hotel, Victoria Street,  
Singapore**

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# CONFERENCE CHAIR MESSAGE

**Dr. Malika Ait Nasser**

International Conference on “Medical, Medicine & Health Sciences” serves as platform that aims to help the scholarly community across nations to explore the critical role of multidisciplinary innovations for sustainability and growth of human societies. This conference provides opportunity to the academicians, practitioners, scientists, and scholars from across various disciplines to discuss avenues for interdisciplinary innovations and identify effective ways to address the challenges faced by our societies globally. The research ideas and studies that we received for this conference are very promising, unique, and impactful. I believe these studies have the potential to address key challenges in various sub-domains of social sciences and applied sciences.

I am really thankful to our honorable scientific and review committee for spending much of their time in reviewing the papers for this event. I am also thankful to all the participants for being here with us to create an environment of knowledge sharing and learning. We the scholars of this world belong to the elite educated class of this society and we owe a lot to return back to this society. Let's break all the discriminating barriers and get free from all minor affiliations. Let's contribute even a little or single step for betterment of society and welfare of humanity to bring prosperity, peace and harmony in this world. Stay blessed.

Thank you.

**Dr. Malika Ait Nasser**

Conference Chair

Email: [chair@academicfora.com](mailto:chair@academicfora.com)

MMHS-2019



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## Conference Schedule

**DAY 01 Tuesday (June 04, 2019)**

**Venue: Room 1**

08:30 am – 08:35 am	Welcome Reception & Registration
08:35 am – 08:40 am	Opening Ceremony
08:40 am – 08:45 am	Welcome Remarks – Conference Coordinator Berlin International Research Cluster
08:45 am – 08:50 am	Introduction of Participants
08:50 am – 08:55 am	Group Photo Session
08:55 am – 09:00 am	Grand Networking Session and Tea Break



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**DAY 01 Tuesday (June 04, 2019)**

**Session I (09:00 am – 10:30 am)**

**Venue: Room 1**

**Track A: Business, Social Sciences and Humanities**

<b>EPGS 19-June-103</b>	Fascinating Khlong-Toey: The Study of Slum Tourism Development	Pinnara Kumpetch
<b>EPGS 19-June-104</b>	Alcohol Drinking Behaviour before, during and after the Great Recession in Canada	Dr Ehsan Latif
<b>EPGS 19-June-105</b>	The Role of Weights and Measures in Improving the Livelihood of Women Farmers in Ghana	Adwoa Oforiwa Antwi
<b>EPGS 19-June-106</b>	The Role of Women Enterprises for the Conservation of Kakamega Forest, Kenya	Ondiba Hesborn Andole
<b>PLBEH-JUNE-005</b>	Auditory Stimuli Reduce Physical Stress: Attentional or Motivational Effect? A Study on the Psychological Mechanisms Underlying the Effects of Music on Physical Stress	Ka Eun Kim
<b>PLBEH-JUNE-005C</b>	Auditory Stimuli Reduce Physical Stress: Attentional or Motivational Effect? A Study on the Psychological Mechanisms Underlying the Effects of Music on Physical Stress	Woo Jin Kim

**Coffee Break (10:30 am – 11:00 am)**

**DAY 01 Tuesday (June 04, 2019)**

**Session II (11:00 am – 11:40 am)**

**Venue: Room 1**

**Track B: Engineering & Technology, Computer, Basic & Applied Sciences**

<b>SISA-JUNE-001</b>	Characterization of Cracks Using Finite Element Simulation and Machine Learning	Fatima Barrarat
<b>SISA-JUNE-003</b>	Building Drain Element Types and Drainage Discharge	Ming-Chi Chen

**DAY 01 Tuesday (June 04, 2019)**

**Session III (11:40 am – 12:00 pm)**

**Venue: Room 1**

**Track C: Medical, Medicine & Health Sciences**

<b>OSA-269-105M</b>	Establishment of the Shari’ah Framework for the Application of Somatic Gene Therapy in Human	Zakiah Samori
<b>OSA-269-103M</b>	Is Parkinson’s Disease with History of Agent Orange Exposure Different from Idiopathic Parkinson’s Disease?	Young Soon Yang
<b>OSA-269-101M</b>	Endothelial MicroRNA-10a is Hemodynamics-Regulated Molecule to Inhibit Endothelial Dysfunction	Ting Yu Lee

**Lunch Break & Closing Ceremony (12:00 pm – 01:00 pm)**



## List of Conference Attendees

The following Scholars/ practitioners/educationist who don't have any paper presentation, however they will attend the conference as delegates & observers.

Sr. No	Official ID	Name	Affiliation Details
1.	SIN-169-101MA	Dr Jacques GAST	Clinique des Grangettes, 7 Chemin des Grangettes, 1224 GENEVA, SWITZERLAND
2.	SISA-JUNE-004	Soon Gim Lay	Singapore

	<b>DAY 02 Wednesday (June 05,2019)</b>	
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## **City Tour and Shopping Day**

All respective guests are free to conduct their own sightseeing and tour. The second day of the event is reserved for this memorable purpose.



## **TRACK A: MEDICAL, MEDICINE & HEALTH SCIENCES**



# Establishment of the Shari'ah Framework for the Application of Somatic Gene Therapy in Human

Zakiah Samori<sup>1\*</sup>, Fadilah Abd Rahman<sup>2</sup>

**Abstract** Human gene therapy is best known as a transfer of nucleic acids to either the somatic cells or germ cells of an individual. It introduces genetic materials which have therapeutic purpose ranging from inherited genetic disorders to certain malignancies and infectious diseases. This medical scientific breakthrough has received lucrative demand worldwide as it offers potential treatment to cure genetic diseases in human at the molecular level. Since then, thousands of people have already participated in the trials thus it is likely to be part of medical practice in the future. Despite of the tremendous benefits that it promises, this new biomedical technology has given rise to several contentious issues from the ethical and religious point of view. Since it comprises of two different therapies namely somatic and germ line gene therapy, each involves different procedures thereby poses different legal ruling and decision. This study attempts to propose a complementary model of the Shari'ah framework on the human gene therapy with special reference to the somatic gene therapy. This proposed framework is designed and developed to fulfil the lacuna of the Shari'ah Framework on the application of the somatic gene therapy after an in depth study of its position from the Shari'ah point of view. In achieving this, a detailed analysis and outlook into the Qur'anic evidences along with the Hadith of the Prophet Muhammad pbuh were carried out. Following this, its position from the pragmatic approach of the Maqasid al-Syariyyah (Objective of the Shari'ah) and the Qawa'id Fiqhiyyah (Islamic Legal Maxims) is also analyzed in further detail. This model of Shariah Framework would serve as the ethical basis for the application of somatic gene therapy in Malaysia and beyond (particularly Muslim countries) especially for Muslim doctors, scientists and Muslims at large. For Muslim countries such as Malaysia where Muslims makes the majority of the population and Islam as the official religion in Article 3 of its Federal Constitution, this framework is deemed to be important reference in providing the essential guidelines on the permissibility of this therapy. Consideration of the position of Somatic Gene Therapy from the Shari'ah perspective is undeniably crucial in any attempt to regulate Somatic Gene Therapy in any Muslim countries in the future.

**Keywords:** Somatic Gene Therapy, Shari'ah Framework, Islamic Principles Maqasid Syariyyah Qawaid Fiqhiyyah

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# Is Parkinson's Disease with History of Agent Orange Exposure Different from Idiopathic Parkinson's Disease?

Young Soon Yang\*

**Abstract:** During Vietnam War, many Korean soldiers were dispatched to fight in the war where they were exposed to Agent Orange. Until now, there exist only limited evidence on existence of association between exposure to Agent Orange and Parkinson's disease (PD). To elucidate the effects of Agent Orange exposure on PD, we compared the clinical characteristics and radiolabeled 18F-FP-CIT PET uptake between patients with Agent Orange exposure and patients with Agent Orange no-exposure. We retrospectively evaluated 143 patients exposed to Agent Orange and 500 patients with no exposure to Agent Orange from our movement clinics database. The differences between clinical characteristics and pattern of 18F-FP-CIT PET uptake were investigated. Among Unified Parkinson's Disease Rating Scale III motor subscales, tremor at rest, rigidity, finger taps, and rapid alternating movement was significantly higher in patients exposed to Agent Orange as compared to patients with no exposure to Agent Orange. The facial expression score was significantly lower in patients exposed to Agent Orange as compared to patients with no exposure to Agent Orange. Compared to patients not exposed to Agent Orange, all basal ganglia areas (contra- and ipsilateral caudate nucleus, anterior putamen, and posterior putamen) showed a lower 18F-FP-CIT uptake and higher asymmetry index of anterior and posterior putamen was found in patients exposed to Agent Orange. The caudate/putamen ratio was significantly lower in patients exposed to Agent Orange as compared to patients with no exposure to Agent Orange. This study showed a different clinical profile and FP-CIT PET findings between patients exposed to Agent Orange as compared to patients with no exposure to Agent Orange. This finding suggests the possibility of different pathophysiology of PD in patients exposed to Agent Orange from idiopathic PD.

**Keywords:** Agent Orange, 18-FP-CIT PET, Parkinson's Disease

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# Endothelial MicroRNA-10a is Hemodynamics-Regulated Molecule to Inhibit Endothelial Dysfunction

Ting Yu Lee\*

**Abstract:** Blood flow patterns, i.e. pro-atherogenic oscillatory flow (OS) and atheroprotective pulsatile flow (PS), have been identified to be the vital hemodynamic forces to modulate endothelial cell (EC) dysfunction and function to affect the formation of atherosclerotic disease. However, the roles of hormone receptor and microRNA (miRs) in hemodynamics-modulated EC function or dysfunction remain unclear. The aim of this study is to elucidate the role of hormone receptor RAR $\alpha$ -directed miR-10a signaling in hemodynamics-modulating EC function and dysfunction. In vitro flow system was used to generate pro-atherogenic OS and atheroprotective PS to investigate the effect of hemodynamic forces on miR-10a signaling and EC dysfunction, and its underlying mechanism. In vivo apolipoprotein E-deficient (ApoE<sup>-/-</sup>) mice model was used to evaluate the therapeutic effect of miR-10a on atherosclerosis. Our results showed that miR-10a is the miR with the lowest expression among all examined shear-responsive miRs in ECs in response to pro-atherogenic OS, and has relatively higher expression than other shear-responsive miRs in ECs in response to atheroprotective PS. MiR-10a targets inflammatory transcriptional factor GATA6 to modulate pro-inflammatory VCAM-1, which is differentially regulated by atherogenic OS and atheroprotective PS. Mechanistically, hormone receptor RAR $\alpha$  and RXR $\alpha$  are induced by atheroprotective PS to form heterodimer in the nucleus to enhance miR-10a expression to inhibit pro-inflammatory GATA6/VCAM-1 signaling. In contrast, HDAC-3/-5/-7 are induced by atherogenic OS to associate with RAR $\alpha$  to form repression complex to repress RAR $\alpha$ 's function and miR-10a signaling. Finally, our data on ApoE<sup>-/-</sup> mice model demonstrated that systemic delivery of miR-10a induces the expression of endothelial miR-10a to repress GATA6/VCAM-1 signaling, and subsequently inhibits the formation of atherosclerosis. Our findings provide new insight that hormone receptor RAR $\alpha$  plays the important role in modulating miR-10a/GATA6/VCAM-1 signaling in ECs in response to different flow patterns. Moreover, in vivo induction of endothelial miR-10a inhibits the progression of atherosclerosis.

**Keywords:** Endothelial Cell, Hormone, Microrna, Therapeutic Component, Atherosclerosis

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## **TRACK B: BUSINESS, ECONOMICS, SOCIAL SCIENCES & HUMANITIES**



# Fascinating Khlong-Toey : The Study of Slum Tourism Development

Jaruwan Kumpetch<sup>1\*</sup>, Pinnara Kumpetch<sup>2</sup>

**Abstract:** The study of feasible tourism development in Khlong-Toey slum is a part of city equality study. The objective is to find ways to develop tourism of Thailand's first slum in Khlong-Toei area. The methodologies used are In-depth Interview and Participant Observation. The study indicates that urban development affects the number of labor force in the agriculture sector. Labor has moved to the city and work in the development and construction of infrastructure. Following from the building of Port Authority of Thailand in 1938, there were people from other provinces coming into labor and settle their lives in port area. Later on, it has become up to 43 communities, 14,500 households, and over 65,000 people in the area. Even though, the area is currently under development and aiming to become an economic potential source, it still has to go through many processes until reaching successful position. Khlong-Toey is a congested community which shows social backgrounds and cultures as its identity. Furthermore, developing and promoting tourism is the fastest and most effective way of creating income for country. Tourism can be distinguished into different categories. For instance, Health Tourism, Agriculture Tourism, and Tourism of Designated Areas. These three categories have been practically operated in many countries, such as the Rainbow Village (Kampung Pelangi, east of Jakarta, Indonesia), the city of Rio de Janeiro (Brazil), etc. In Rio Top Tour: Rio De Janeiro in the Different Perspective which leads and encourage tourists to visit Favales or Mumbai City of India. For Klong-Toey slum, the area has been developed by Local Alike agency who later then, initially introduced the Slum Tour. Local Alike has found the possibilities of developing slum into urban development area by renovating the abandoned building which was unsuccessfully constructed and introducing food, handicraft products, and local beliefs which come with identity of each community. Therefore, the study is aiming to develop tourism of slum and giving new experiences to tourists.

**Keywords:** Khlongtoey, Slum, Bangkok

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# Alcohol Drinking Behaviour before, during and after the Great Recession in Canada

Dr Ehsan Latif<sup>\*</sup>

**Abstract** This study used panel data from the National Population Health Survey (2006-2011) to examine the impact of 2008-2009 Great Recession and its aftermath on drinking behavior among the Canadian population. To measure drinking behavior, this study used the following variables: binge drinking behavior, type of drinker, daily alcohol consumption and weekly alcohol consumption. After controlling for unobserved individual differences, this study found that the 2008-2009 Great Recession had no significant impact on drinking behavior. The study further found that drinking behavior did not see any significant change in the aftermath of recession, compared to the drinking behavior in the year before the Great Recession. The study did not find any significant gender difference in the impact of the Great Recession and its aftermath on drinking behaviors.

**Keywords:** Drinking Behavior; Great Recession; Canada

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# The Role of Weights and Measures in Improving the Livelihood of Women Farmers in Ghana

Adwoa Oforiwa Antwi\*, Kenichi Matsui<sup>2</sup>, Hesborn Ondiba<sup>3</sup>

**Abstract** The Government of Ghana has provided financial resources and programs to improve food security, but it has not paid much attention to price and market reforms. Women are predominant customers at local markets whereas those farmers who come to sell crops are predominantly males. Any meaningful attempt to invigorate farming and market activities requires various forms of incentives, in which farmers can get more profits from selling their crops at market so that they feel like producing more. This paper argues that the introduction of standard weights and measures to local markets can be one of the most important incentives for improving food security. Using a questionnaire survey, we interviewed about 147 farmers at Techiman Market, one of major local markets, to understand their perceptions about weights and measures for pricing. We found that about 99% of our respondents perceived standard weights and measures as a tool to improve their earnings. They thought that standardization would somehow increase their purchasing power. Among the female respondents, about 19% had a small farm size (1acre). Nevertheless, these women gained profits more than men with an equal farm size. This result suggests that when women were empowered with more land and financial support, they would improve rural livelihoods. At the end of this paper, we make some policy recommendation to improve agronometrology and food security in Ghana and possibly western Africa at large.

**Keywords:** Food Security, Ghana, Women, Weights and Measures

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# The Role of Women Enterprises for the Conservation of Kakamega Forest, Kenya

Ondiba Hesborn Andole\*

**Abstract** Past studies showed that Kakamega Forest in western Kenya faced rapid deforestation. Local people are often blamed for this problem. However, this paper argues that local people also have traditionally played important roles in sustaining the forest environment. This paper seeks to demonstrate how local women's community-based entrepreneurial activities have enhanced the management and conservation of Kakamega Forest. A questionnaire survey was administered to 149 women who belonged to various entrepreneurial/conservation groups called *chamas* near this forest. We found that many of these women found opportunities to earn more income from forest conservation activities. For example, about 58% of the respondents were involved in the cultivation and domestication of indigenous/medicinal plants that they harvested from the forest. These activities led to the conservation of indigenous species and, at the same time, eased ecological pressure on the limited forest resources. Also, about 19% of the respondents were involved in making eco-friendly *jikos* or cooking stoves for business purposes. This effort reduced fuel wood harvesting from the forest.

**Keywords:** Kakamega Forest, Conservation, Sustainability, Entrepreneurship

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# **Auditory Stimuli Reduce Physical Stress: Attentional or Motivational Effect? A Study on the Psychological Mechanisms Underlying the Effects of Music on Physical Stress**

**Ka Eun Kim<sup>1\*</sup>, Woo Jin Kim<sup>2</sup>**

**Abstract:** A low-intensity treadmill-running experiment exposed 11 high school students (aged 16-18 years) to various forms of auditory stimuli. The experiment was designed to test if the reduction of physical stress by music is due to a distracting effect that is common in all auditory stimuli, or due to a motivational and auditory-motor synchronization effect specific to music. Each subject was instructed to run as long as possible for 4 trials. Each trial was conducted under one of the four treatments: no auditory stimuli (control), music, audiobook, and background music while dual-tasking between running and counting footsteps. Treatments of audiobook and music both resulted in longer average running times than control, though the effects of audiobook treatment were minimal compared to those of music. Interestingly, all subjects that ran longer under music treatment compared to control also ran longer than control when instructed to count their footsteps while listening to background music. These results suggest the following: reduced physical stress by music is caused partly by distracting effects; the bulk of reduced physical stress must be due to music-specific factors such as rhythm, melody, and harmony; the combination of a focus on physical stress and musical stimuli facilitates auditory-motor synchronization in certain cases. Limitations including small sample size and the need for improved measurement techniques for physical stress are given.

**Keywords:** Music Perception, Physical Stress, Music Therapy, Auditory-Motor Synchronization

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**TRACK C: ENGINEERING &  
TECHNOLOGY, COMPUTER, BASIC  
& APPLIED SCIENCES**





# Characterization of Cracks Using Finite Element Simulation and Machine Learning

Fatima Barrarat\*

**Abstract:** The exploitation of nondestructive testing by eddy currents in fast times becomes a capital necessity, that is why it becomes essential to have a fast tool for the eddy current signals inversion. Generally, this inversion is done through an experimental investigation by plotting standard curves, an efficient but costly investigation [1], or by an optimization algorithm leading to a computation time that can become prohibitive [2]. Our objective is the crack characterization in the conductive materials from signals obtained during the eddy currents testing. In this paper, we propose the inversion of eddy current signals from machine learning methods, namely artificial neural networks, deep learning and hybrid learning method. In this context, a database consisting of the impedance of the sensor-cracked part system (constituting the crack signature as network input vector) is constructed from a 3D finite element simulation and validated by an experimental companion. This database will be used to train the machine learning algorithms in order to estimate the geometric parameters of the crack located in a conductive part. The developed approaches make it possible to estimate with promising results the desired parameters of the crack.

**Keywords:** Artificial Neuron Network, Crack Characterization, Eddy Currents Testing, Inverse Problem, Machine Learning

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# Building Drain Element Types and Drainage Discharge

Ming-Chi Chen<sup>1\*</sup>, Liang Tsing<sup>2</sup>

**Abstract:** Drains in a building typically consist of a drainage structure and drain elements. A drainage structure is usually composed of a base, a cover, and drain elements. The base has through holes and is placed in the drain. The cover is attached to the top of the base and has multiple holes. Drain elements are placed between the base and the cover, including a hollow barrel installed in the through holes of the base and a spiral structure formed on the inner wall of this hollow barrel. The spiral structure contains multiple spiral waterways, which speeds up the generation of vortices when water passes through these spirals. The vortex, in turn, increases the drainage speed and impedes the accumulation of lightweight impurities during the passage of water. With vortices operating in this structure, water can quickly be drained. Experiments conducted in this study revealed that adding diversion elements to the drain can speed up the formation of vortices. A vortex can disturb foreign materials that remain around the drain; a vortex can break up the blockage and cause water to drain rapidly.

**Keywords:** Falling Head, Drain Cover, Drainage Structure, Drain Element, Spiral Structure, Free Vortex

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