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***Society of Medical, Medicine and  
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# CONFERENCE PROCEEDINGS

## BOOK OF ABSTRACTS MMHS-2019

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



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# **Book of Abstracts Proceeding**

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

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

**Venue: Mercure Hotel Amsterdam City**

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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 Saturday (May 25, 2019)**

**Venue: Room 1**

09:00 am – 09:30 am	Welcome Reception & Registration
09:30 am – 09:40 am	Opening Ceremony
09:40 am – 09:50 am	Welcome Remarks – Conference Coordinator Academic Fora
09:50 am – 10:00 am	Introduction of Participants
10:00 am – 10:15 am	Group Photo Session
10:15 am – 10:30 am	Grand Networking Session and Tea Break





**DAY 01 Saturday (May 25, 2019)**  
**Session I (10:30 am – 12:00 pm)**  
**Track A: Medical, Medicine & Health Sciences**

<b>AMS-459-107M</b>	Studies on the Exposure Assessment of Natural Arsenic-Induced Health Crisis from Groundwater Environmental in West Bengal, India	Chien Yen Chen
<b>AMS-459-105M</b>	Establishment of the Shari'ah Framework for the Application of Somatic Gene Therapy in Human	Zakiah Samori
<b>AMS-459-106M</b>	Gene-Network Analysis in the Potential Effect of Exposure to Bisphenol A on Lymphomagenesis	Chun Yu Chuang
<b>AMS-459-101M</b>	Detecting the Significant Second Order Gene-Gene Interactions Through A Multi-Objective Approach of Multifactor-Dimensionality Reduction	Yu Da Lin
<b>AMS-459-102M</b>	Is Parkinson's Disease with History of Agent Orange Exposure Different from Idiopathic Parkinson's Disease?	Young Soon Yang
<b>AMS-459-103M</b>	Endothelial MicroRNA-10a is Hemodynamics-Regulated Molecule to Inhibit Endothelial Dysfunction	Ting Yu Lee

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



## 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.	AMS-459-101A	Abdimomun Iuldashev	Orlando Regional Medical Center, Florida
2.	AMS-459-102A	Dr. Manjinder Singh Saini	City Diagnostics, India
3.	MRBSS-59-05	Muhammad Jehanzaib Chaudhry	Mathematics & Computer Skills Departments, Academic Bridge Program, Qatar Foundation

	<b>DAY 02 Sunday (May 26,2019)</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**



# Studies on the Exposure Assessment of Natural Arsenic-Induced Health Crisis from Groundwater Environmental in West Bengal, India

Chien Yen Chen<sup>1\*</sup>, Jyoti Prakash Maity<sup>2</sup>

**Abstract** The contamination of geogenic and anthropogenic contaminants in groundwater and its harmful effects on human health have been reported worldwide. One of them, the arsenic (As), is a metalloid with different allotropes that is widely distributed in natural environment (as minerals, ores and in groundwater) and drinking of As-contaminated groundwater has adverse effects on health of millions of people globally. The frequently observed symptoms of As exposure are melanosis, keratosis. risks of bladder, lung, liver and kidney cancers in As-exposed patients. The objective of present study was to examine the distribution of groundwater As contamination and the prevalence of As toxicity among the affected population in North 24 Parganas district, West Bengal, India. Also, the attempts were also made to highlight the relation in between As concentration in groundwater and in human hair, nail and urine. Medical evaluations of the As-induced diseases (arsenical dermatosis, keratosis and melanosis) have been considered as part of studying exposure scenarios among the study population. The results of the investigation showed that 82.7 % of the sampled groundwater from tube wells contain the As concentrations above the WHO limit as 10 µg/L, while 57.7 % of the sampled groundwater from tube wells contain the As concentrations >50 µg/L. Generally, it is observed that the As concentrations in hair, nail and urine were positively correlated with As concentrations in drinking water. The As concentrations in hair and nails showed significant correlation ( $p < 0.05$ ) with groundwater As concentrations as  $r^2 = 0.54$  and  $0.63$ , respectively. The As concentrations in urine were significantly correlated ( $p < 0.05$ ) with As concentrations in groundwater ( $r^2 = 0.66$ ), hair ( $r^2 = 0.56$ ) and nail ( $r^2 = 0.71$ ) samples. Furthermore, the correlation between As concentrations in hair and nails was statistically significant ( $r^2 = 0.73$ ;  $p < 0.05$ ). In the study population, a strong association was observed between the As concentrations ranging of 51-99 µg/L with keratosis and melanosis outcomes, while the probability decreases at higher concentration ranges perhaps due to switching away from the use of As-contaminated tube wells for drinking and cooking purposes. Thus the level of As concentrations in hair, nail and urine samples of the study population indicated the degree of severity of As exposure in the study region.

**Keywords:** Natural Arsenic Exposure; Groundwater; Bio-Indicator (Human Hair, Nail and Urine); As-Induced Diseases; West Bengal, India

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# 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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# Detecting the Significant Second Order Gene-Gene Interactions through A Multi-Objective Approach of Multifactor-Dimensionality Reduction

Cheng Hong Yang<sup>1\*</sup>, Li Yeh Chuang<sup>2</sup>, Yu Da Lin<sup>3</sup>

**Abstract** Many studies have proved that epistasis detection is helpful to understand the susceptibility of human genetic diseases. Numerous machine learning algorithms have been proposed, of which multifactor dimensionality reduction (MDR) is an effective epistasis detection algorithm. However, epistasis detection based on contingency tables in MDR has not been widely studied. In this study, we proposed a multi-objective MDR for the epistasis detection. We introduced the Pareto set operation to make MDR able to simultaneously adopt the multiple measures in the two-way contingency table of MDR to assess epistatic interactions, which used the correct classification rates and predictive summary index. The cross-validation consistency was adopted to determine most favourable GGIs amongst Pareto sets. Subsequently, the applications of set theory are able to choose the best epistatic interactions in k-fold cross-validation. Thus, the accuracy of MDR can be improved on epistasis identification by a multi-objective approach. Two of the MDR measures, including classification correct rate and predictive summary index, were used for the multi-objective approach. The results showed that the detection success rates of multi-objective MDR were better than that of the other MDR-based algorithms in identifying epistatic interactions. This study demonstrates that the correct classification rates and predictive summary index can effectively detect the epistasis in multi-objective MDR because the multi-objective MDR can simultaneously consider multiple measures to detect the epistatic interactions.

**Keywords:** Classification, Multifactor Dimensionality Reduction, Multiple Objective

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# Survey of Health Services Satisfactions from NCD Patients in Thailand

Onthida Khamsiriwong<sup>1\*</sup>, Noppon Choosri<sup>2</sup>, Pathathai Na Lumpoon<sup>3</sup>, Krit Thongbanjop<sup>4</sup>, Supavas Sitthithanasakul<sup>5</sup>, Supavas Sitthithanasakul<sup>6</sup>

**Abstract** Fructus Swietenia Macrophylla, common name: sky fruit, is a species of plant in the Meliaceae family. Many reported showed that sky fruit have been reported to improve diabetes, hypertension and hyperlipidemia and other effects. However, very little is known about whether sky fruit contains anti-cancer active components. The study is to evaluate the effects of sky fruit, from the solomon islands, in cancer activity. In our preliminary data, we have defined anti-proliferation effect of the crude ethanol extracts of sky fruit in breast (MCF-7 and MDA-MB-231), lung (A549), and melanoma cancer cells (A2058). The ethanol extracts of sky fruit increased the activation of caspase-3 and PARP, but decreased p-Akt, p-Erk, and p-JNK phosphorylation in A2058 cells. Understanding the molecule basis of anti-cancer of sky fruit extracts, in conjunction with its low toxicity and non-mutagenic nature, will make it a potentially effective chemopreventive and therapeutic agent against some types of cancers.

**Keywords:** Sky Fruit, A2058 Cells, PARP, Caspase-3

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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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