

**3<sup>rd</sup> International Conference on  
Biological & Health Sciences (CIC-  
BIOHS'19), Joint conference of Cihan  
University-Erbil and Hawler Medical  
University.**

**April 30<sup>th</sup> – May 1<sup>st</sup>  
2019 | Erbil**

**2019**

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**Toward Healthier Community**

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Program & Abstracts







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## ***Welcome address of Cihan University-Erbil***

His Excellency Dr.Yusuf Goran Minister of Higher Education and Scientific Research, Kurdistan-Region,

Dear respectful researchers,

Dear Guests,

Good day to you all,

I welcome you all in Cihan University-Erbil and announce the start of the 3<sup>rd</sup> International Conference on Biological and Health Sciences (CIC-BIOHS'19) wishing the conference all success.

Ladies and Gentlemen, at Cihan University-Erbil, with the support of the Ministry of Higher Education and Scientific Research in Kurdistan Region, and the support of the Board of Trustees, we did not save and miss any opportunity to enrich and encourage the Scientific Research. This Conference is one of a series of Scientific Conferences held by Cihan University-Erbil periodically throughout the one academic year. We, in Cihan University believe that Education and Scientific Research are the main fundamental Pillars that any modern University is based on. We encouraged researchers with all possible facilities to produce valuable and original researches, the thing that brought Cihan University-Erbil a distinguished place among the other universities in Kurdistan Region, Iraq, and the Region, making Cihan University- Erbil known into the Global classification and leading the local ranking.

Ladies and Gentlemen,

Cihan University-Erbil has accomplished many achievements in all fields, starting with ideal university environment with typical classrooms, modern laboratories equipped with the latest technological productions, green spaces, stadiums, halls for painting and fine arts, up to the concept of the university city, and providing academic staff with different majors and specializations holding Masters and PhD degrees in

their perspective field of study. Cihan University-Erbil was not limited to only an educational role, but the university played a crucial social role through a number of centers which were established by Cihan University itself such as: Cihan University Research Centre, Development and Consultation Center, Cultural Center, Language Center, Information Technology Center; to grant ICDL Certificate, and many other centers. This panorama that is created by Cihan University- Erbil made it an icon of the private university education in Kurdistan Region and an example for other universities in Iraq and the Region.

Dear Participants,

(47) Researches were received by the Scientific Committee of the Conference from different universities. (31) Researches were accepted meeting the requirements of the Conference.

Today, Biological and Health Sciences occupy an exceptional position among other sciences, not only for the utmost importance but also for volume of scientific and medical achievements accomplished through research and scientific experiments that offer something new every day to mankind. The researchers here have a double responsibility to produce scientific results and recommendations at the level of the aspirations and the growing needs to keep pace with world's rapid spikes in this field, and that what was exactly the conference aiming at.

Once again, you are most welcome. We wish the 3<sup>rd</sup> International Conference on Biological and Health Care Sciences all success.

Professor Dr. Amjad Sabir AL-Dalawi  
President of Cihan University-Erbil  
April 29<sup>th</sup>, 2019



## Program

*Tuesday, April 30<sup>th</sup>, 2019*

<b>9:00</b>	Registration
<b>10:00 -12:00</b>	<b><i>Plenary Session</i></b> (Conference Hall)
<b>9:30</b>	Opening remarks
<b>10:00</b>	<b>Welcome Notes</b>
<b>10:45</b>	<b><i>Keynote I: The Application and Safe Use of Nanomaterial in Dentistry</i></b> Professor Richard Handy, University of Plymouth, U.K.
<b>11:15</b>	<b><i>Keynote II: Innovation in the Biopharmaceutical Processes</i></b> Professor Dr. Mohamed Al-Rubeai, University College Dublin, Ireland; Cihan University- Erbil, Iraq.
<b>11:45</b>	<b><i>Coffee Break</i></b>



**12:00-13:00**

**Track: Medical Microbiology and Immunology**  
**Session 1: 12:00 – 13:00 April 30<sup>th</sup> , 2019**  
**Venue: Conference Hall**

**Chair committee:**

**Professor Dr. Waleed Al-Murani**  
**Assist Professor Dr. Sewgill S. Anwer**

**12:00**

**Significance of HBV Diagnosis by RT-PCR over Serological Markers in HBV Patients.**

Amer Ali Khaleel, Salah Tofik Jalal Balaky, Saeed Ghulam Hussain (Hawler Medical University)

**12:15**

**Prevalence and Characterization of Hepatitis B and Hepatitis C Infection among Blood Donors in Blood Bank of Erbil.**

Chato Ali taher and Goran Noori Salih (Hawler Medical University)

**12:30**

**Characterization of Lactobacillus isolates from human mouth and feces as probiotics**

Wala'a Shawkat Ali, Aya Talal Reza (University of Baghdad)

**12:45**

**Anti-Toxoplasma, Anti-Rubella and Anti-CMV Antibodies in Dumpsite Workers of Erbil Governorate**

Tanya Salam Salih, Ameena Sabah Mahmood Juma, Muhsin Hmeadi Ubeid (Cihan University-Erbil)

**13:00**

**Coffee Break**

**13:30-15:00**

**Track: Health care**

**Venue: Conference Hall**

**Session 2: 13:30 – 15:00 April 30<sup>th</sup> , 2019**

**Chair committee:**

**Assistant Professor Dr. Hamdia Mirkhan Ahmed**  
**Assistant Professor Dr. Aza Bahaddin Taha**



- 12:00-13:00**      **Track: Health Care**  
**Session1: 12:00 – 13:00 April 30<sup>th</sup>, 2019**  
**Venue: Cihan Academia (Building 8)**  
**Chair committee:**  
**Assistant Professor Dr. Zohair Mohsen**  
**Dr. Ghofraan A Attallah**
- 12:00**              **Keynote III : Rehabilitation of Rheumatic Diseases**  
Assistant Professor Dr. Khalid Al-Dabagh (Hawler Medical University)
- 12:30**              **Nutritional characteristics of pregnant women and its relation with anemia during pregnancy in a sample of Kurdish women, Iraq**  
Rushna Ghazi Abdulwahid, HamdiaMirkhan Ahmed
- 12:45**              **Effects of Aerobic Exercise in Decrease “Low Back pain” in pregnant Females**  
Farhad Mustafa Mousal , Maysoon Al-Haideri,1 Ali Hussein Astokorki 1,2  
1 Cihan University-Erbil, 2 Salahaddin University
- 13:00**              **Coffee Break**
- 13:15**              **Track: Biochemistry and Physiology**  
**Session: 13:15 – 15:45 April 30<sup>th</sup> , 2019**  
**Venue: Cihan Academia (Building 8)**  
**Chair committee:**  
**Assistant Professor. Dr. Kawa Dzaiy**  
**Dr. Soza Tharwat Baban**
- 13:30**              **Keynote III:**  
**Oral Care Products Improvement Versus Oral Pathogens: A challenge gate to your health and disease.**  
Associate professor Dr. Essam Makky  
Universiti Malaysia Pahang
- 14:00**              **Study the Effect of Hypertension Drugs on Lipid Profile and Liver Function among Iraqi Patients**  
Mustafa Mohammed, Ammal Eemaeel Ibrahim

Al-Nahrain University, Baghdad

**14:15**

**In vitro Screening of Seed Extracts of Medicinal Plants for Protease Inhibitory Activity**

Faiyaz K. Shaikh<sup>1</sup>, Saber W. Hamad<sup>2</sup>, Sarwan W. Hamad<sup>3</sup>, Ashok A. Shinde<sup>1</sup>

<sup>1</sup> MGM's Institute of Biosciences and Technology (Inia), <sup>2</sup> Salahaddin University, <sup>3</sup> Cihan University-Erbil,

**14:30**

**Exploration of Amylases Producing Competency of *H. armigera* gut Bacterial Strain, *Bacillus subtilis* RTSBA6 6.00.**

Ashok A. Shinde<sup>1</sup>, Sarwan W. Hamad<sup>2</sup>, Faiyaz K. Shaikh<sup>1</sup>, Manvendra S. Kachole<sup>1</sup>

<sup>1</sup> MGM's Institute of Biosciences and Technology (Inia), <sup>2</sup> Cihan University-Erbil

**14:45**

**The effect of methimazole treatment on lipid profile and kidney functions in patients with hyperthyroidism**

Teeba Baher and Ammal Esmael Ibarahim  
college pharmacy / Al-nahrain university

**15:00**

**Lunch Time**

*Wednesday, May 1<sup>st</sup>, 2019*

**13:00-14:45**

**Track: Health Care**

**Session 3: 13:00- 14:45 May 1<sup>st</sup>, 2019**

**Venue: VIP Hall (Building 4)**

**Session 3: 14:30 – 15:45 May 1<sup>st</sup>, 2019**

**Chair committee:**

**Professor Dr. Nidhal A. Muhammed**

**Dr. Chato Ali Taher**

13:15

**Radish juice Promote kidney stone deposition in Ethylene glycol Induced Urolithiasis in Rats**

Falah M. Aziz <sup>1</sup>, Dlshad H. Hassan <sup>2</sup> (1 Salahaddin University-Erbil, 2 Soran University)

13:30

**Omega-3 Oil Ameliorates Histological and Ultrastructural Alterations Induced By Cadmium Chloride in Rats Testis**

Treefa F. Ismail <sup>1</sup>, Falah M. Aziz <sup>1</sup> (1Salahaddin University-Erbil)

13:45

**The Piriformis Syndrome: Evaluation of Seven cases**

Farhad Mustafa Mousa<sup>1</sup>, Zainab Aziz Bakr<sup>1</sup> (1 Cihan University-Erbil)

14:00

**Association of Total Dietary Fats and Its Subtypes with Risk of Breast Cancer**

Jwan Ibrahim Jawzali  
Hawler Medical University

14:15

**Some Haematological Parameters Among Refugees in Kawrgosk Camp-Erbil Governorate**

<sup>1</sup>Tanya Salam Salih,<sup>1</sup>Muhsin H. Ubeid, <sup>1</sup>Safa Safin Haydar,  
<sup>1</sup>Ameena S. M. Juma

<sup>1</sup>Cihan University- Erbil

14:30 **Effect of Drinking Water Hardness on Kidney Stones Formation in Ranya District**  
Akram Othman Ismail  
Department of Soil and Water, Collage of Agriculture, Salahaddin University  
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14:45  
15:00 **Closing Ceremony**  
15:30 **Lunch Time**

**13:15-15:00** **Track: Medical Microbiology and Immunology**  
**Session 2: 13:15 – 15:00 May 1<sup>st</sup> , 2019**

**Venue: Conference Hall**

**Chair committee:**

**Professor Dr. Richard Handy**

**Assistant Professor Dr. Wala Shawkat Ali**

13:15 **Keynote IV: Adiponectin: As Immunomodulator and Cardio-protective Adipokine**

Assistant Professor Dr. Saeed Kholam Hussain (Hawler Medical University)

13:45 **Prevalence of anti- *Helicobacter Pylori* antibodies among Students of Cihan University- Erbil**

Hadi Mahdi Alsakee, Sarah Hoshyar Maroof, Gulistan Hussein Muhammad, Asia Sherzad Muhammad, Ilaf Abdulrazaq Rashid, Naza khan Tofiq Sdiq (Cihan University-Erbil)

14:00 **Immunological Aspects of *Trichomonas vaginalis* Infection in Women attending Maternity Teaching Hospital and some Public Health Centers in Erbil Governorate, Northern Iraq**

Avreen Salahaddin Nouraddin<sup>1</sup>, Hadi Mahdi Alsakee<sup>2</sup> (1 Erbil Public Health Laboratory, 2 Cihan University- Erbil)

14:15 **Isolation and Identification of Probable Pathogenic Bacteria from The External Body Parts of Ants Collected From Erbil City**

Mustafa B. Ahmad<sup>1</sup> , Muntaha S. Omer<sup>1</sup> , Abdullah M. Ali<sup>1</sup>, Krekar H. Awla<sup>1</sup> ,Shamal A. Hamadamen<sup>1</sup> , Rekar A. Ahmad<sup>1</sup>

and Wand K.Ali<sup>2</sup>

<sup>1</sup> Cihan University- Erbil, Kurdistan Region, Iraq,

<sup>2</sup> Salahaddin University- Erbil

14:30

**Study of efflux pump of multidrug-resistant to  
Staphylococcus aureus by cart wheel test**

<sup>1</sup>Asma Karomi, 1Aryan Kakil,2 Muhsin Edham

1College of Science / Kirkuk university

2College of Pharmacy / Kirkuk university

14:45

15:00

**Lunch Time**

15:30

**Lunch Time**

**13:15-15:00**

**Track: Cell Biology and Genetics**

**Session: 13:15 – 15:00 May 1<sup>st</sup>, 2019**

**Venue: Cihan Academia (Building 8)**

**Assistant Professor Dr. Salah T. Jalal Balaky**

**Dr. Salih Mustafa Salih**

13:15

**Keynote V: New Concepts in Samples and Sampling for Epidemiological and Cellular Studies.**

**Professor Dr. Waleed Al-Murrani**

13:45

**Investigation of the Zinc Oxide Nanoparticles Effect on Thyroid and Testosterone Hormones in Male Rats.**

Noori Mohammed Luaibi, Noor Ali Zayed (Mustansiriyah University Baghdad)

14:00

**Genotoxic Effect of Cigarette and Shisha Smoking on Buccal mucosa Cells of young adult in Duhok, Kurdistan region of Iraq**

Dian Jamel Salih University of Duhok, College of Medicine

14:15

**Will Timing IUI Insemination to Ovulation Help Increase Pregnancy Rate?**

Ghofraan A Attallah (University of Malaya, Malaysia)

14:30

**Bromodomain Inhibitor JQ1 as a Candidate Therapeutic Agent in Malignant Pleural Mesothelioma**

Cinaria Tarik Albadri

(Trinity College Dublin University, Ireland).

14:45

**Investigate the Inhibitory Effect of Silver Nanoparticles (AgNPs) against some Species of Candida and Pathogenic Bacteria.**

Sura Muayad Abdul Majeed (University of Baghdad)

15:00

**Closing Ceremony**

15:30

**Lunch Time**



## General Information

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### *Date and Venue*

April 30<sup>th</sup> –May 1<sup>st</sup>, 2019  
Cihan University-Erbil,  
Nawruz, 100St. 44001 Erbil  
[www.cihanuniversity.edu.iq](http://www.cihanuniversity.edu.iq)

### *Conference Language*

The official conference language is English

### *Keynote Speakers*

#### **Professor Dr. Richard Handy**

School of Biological and Marine Sciences, University of Plymouth,  
U.K.,

#### **Professor Dr. Mohamed Al-Rubeai**

Emeritus Professor of Biochemical Engineering, Adviser to UNESCO  
and MoHE&SR, Iraq – Ireland University College Dublin, Belfield,  
Dublin, Ireland and Cihan University-Erbil, Iraq.

#### **Dr. Khalid Aldabbagh**

MBCHB, HDRMR. FACR. MACP

Consultant Rheumatologist & Medical Rehabilitation, Hawler  
Medical University/College of Medicine. Member of American  
College of Physicians. Fellow of American College of Rheumatology

**Associate Professor Dr. Essam Makky (PhD)**, Universiti Malaysia  
Pahang, Malaysia

#### **Professor Waleed Al-Murrani**

Honorary Professor (Plymouth University, UK) BVM & S, Research  
Dip (Bradford University), PhD (Edinburgh University)

**Assistant Professor Dr. Saeed Kholam Hussain**

Assistant Professor of Immunology, College of Medicine, Hawler Medical University, Erbil, Kurdistan Region, Iraq

***Conference President***

Professor Dr. Amjad Sabir AL-Dalawi, Cihan University-Erbil, Iraq

***Conference High Committee***

Assist. Prof. Hadi M. A. Alsakee, Cihan University- Erbil, Iraq

Assist. Prof. Maysoon Al-Haidari, Cihan University- Erbil, Iraq

Assist. Prof. Hamdia M. Ahmed, Hawler Medical University, Iraq

Assist. Prof. Muhsin H. U. Alghezzi, Cihan University- Erbil, Iraq

Assist. Prof. Ameena S. M. Juma, Cihan University-Erbil, Iraq

***Scientific Committee***

Assist. Prof. Hadi M. A. Alsakee, Cihan University- Erbil, Iraq

Prof. Richard Handy, Plymouth University

Prof. Waleed Al-Murrani, Plymouth University, UK

Prof. Mashitah M. Yusoff, Malaysia Pahang University

Assist. Prof. Maysoon Al-Haidari, Cihan University- Erbil, Iraq

Assist. Prof. Muhsin H. U. Alghezzi, Cihan University- Erbil, Iraq

Assist. Prof. Ameena S. M. Juma, Cihan University-Erbil, Iraq

Associt. Prof. Essam A. Makky , Malaysia Pahang University

Associt. Prof. Kenneth McDowall, University of Leeds

Assist. Prof. Ayad H. Hasan, Koya University, Iraq

Dr. Hasanen Al-Taiar, Oxford University

Dr. Victor Kuri, Plymouth University, UK

Assist. Prof. Salah T. J. Balaky, Hawler Medical University, Iraq

Assist. Prof. Sewgil S. Anwer, Hawler Medical University, Iraq

***Organizing Committee***

Assist. Prof. Ameena S. M. Juma, Cihan University-Erbil, Iraq

Assist. Prof. Ahmad A. Khudihir, Hawler Medical University, Iraq

Dr. Salih M. Salih, Cihan University-Erbil, Iraq

Mr. Raed D. Thanon, Cihan University-Erbil, Iraq

Mr. Tanya S. Salih, Cihan University-Erbil, Iraq

Mr. Haval A. Hamad Amin, Hawler Medical University, Iraq

Mr. Ali M. Hussain, Cihan University-Erbil, Iraq

Mrs. Hawri F. Sami, Cihan University-Erbil, Iraq  
Mr. Adnan J. Makhlig, Cihan University-Erbil, Iraq  
Mr. Hewa O. Ali, Cihan University-Erbil, Iraq  
Miss. Noor T. Muhammed, Cihan University-Erbil, Iraq

### ***Media Committee***

Mr. Hunar Mohammed Hussein, Cihan University-Erbil, Iraq  
Mr. Ahmed Mudher, Cihan University-Erbil, Iraq  
Miss. Khanda Sarkwat Othman, Cihan University-Erbil, Iraq

### ***IT & Help Committee***

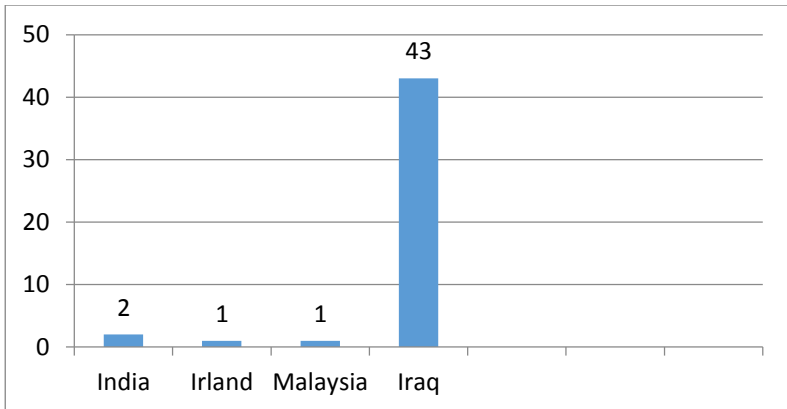
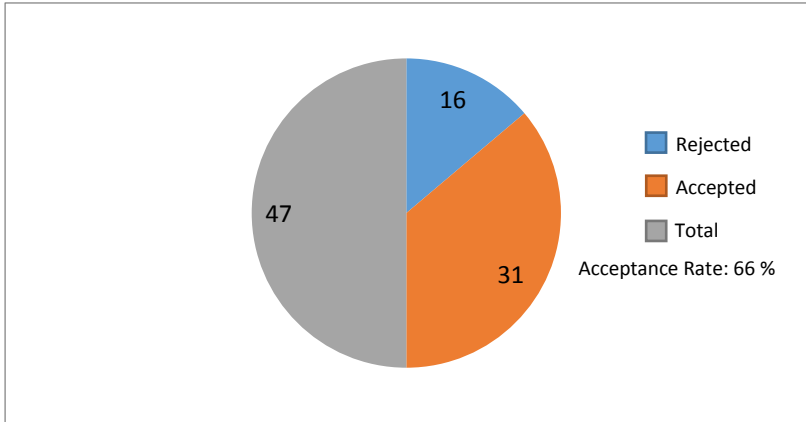
Mr. Mohammed Hussein Shukur, Cihan University-Erbil, Iraq  
Mr. Hassan Fahmi Hassan, Cihan University-Erbil, Iraq  
Mr. Abdullah Abdulabbas Nahi, Cihan University-Erbil, Iraq

### *Paper Statistics*

Received: 47 papers

Accepted: 31 papers

Rejected: 16 papers



## *Keynote Speaker Biography*



**Professor Dr. Richard Handy**

**School of Biological and Marine Sciences, University of Plymouth,  
U.K.,**

**Email: [rhandy@plymouth.ac.uk](mailto:rhandy@plymouth.ac.uk)**

Professor Richard Dr. Handy (FRSB) holds a Chair in Environmental Toxicology at Plymouth University, in the School of Biological and Marine Sciences. His research is on the eco/toxicity of chemicals and especially on nanomaterials. He works on many different organisms such as microbes, invertebrates, fishes and mammals including humans. In addition to national project grants, his laboratory has been a partner in several EU projects including MARINA, NANOSOLUTIONS, SUN, and NanoFASE. His expertise covers toxicity test methods with nanomaterials, dietary uptake studies (in vivo, gut perfusions, cell lines), as well as work on clinical safety (dentistry, injectable nanomaterials,

nanomedicines) and environmental effects especially on aquatic species such as fishes. Crucially, his interests are driven by fundamental mechanistic understanding of the mode of action of nanomaterials and chemicals in biological systems. Tools in his laboratory include classical approaches, such as target organ pathology, through to state-of-the-art systems biology. Richard has served as an external adviser on national and international committees, as well as working on international test guidelines for the OECD. He most recently worked on the bioaccumulation guideline for the OECD working party on nanomaterial (WPMN). He is also an experienced editor. His academic works include textbooks, book chapters, commissioned symposium volumes, special issues of scientific journals, and over a hundred scientific papers. He also writes fiction and non-fiction to bring popular science to the public.



**Professor Waleed Al-Murrani**

**Honorary Professor (Plymouth University, UK)  
BVM & S, Research Dip (Bradford University), PhD (Edinburgh  
University)**

[www.profmurrani.net](http://www.profmurrani.net)

Born in Iraq in 1938, graduated from the University of Baghdad (BVM & S) in 1961 and obtained Research Diploma in Wool Science from Bradford University in UK, 1967; and, Pre-PhD Diploma in Genetics and Biostatistics and PhD (Quantitative and Population Genetics) from Edinburgh University, UK in 1973. Currently and from 2007-2018, he is a Professor at the Schools of Biomedical and Biological Sciences, and working with the Graduate School, Academic Partnership and International Office of the University of Plymouth in UK.

His dynamic scientific career spans over more than 45 years, during which he has held various lead positions in Iraq as Head of Department, Director of Higher Studies and Scientific Research in Baghdad University

and supervised many graduate students at the diploma, MSc and PhD levels. He retired from Baghdad University, in 2006.

Regionally and Internationally, Professor Murrani worked as Technical Advisor for the Arab Agricultural Development Organization in Sudan and as a Consultant for International Organizations including the Food and Agriculture Organization (FAO), and the International Service for National Agricultural Research (ISNAR) in Holland.

Professor Murrani has published extensively (more than 100 publications) in International, Regional and Local scientific reviewed journals and has authored and translated books and book chapters on genetics and biostatistics. He is an accredited member of the Iraqi Translators' Association (ITA).

Professor Murrani is listed in "Who's Who in the World" since 2007 and in the "Biographic Dictionary/Cambridge, since 2008; and was nominated in 2010 for the United Cultural Convention International Peace Prize. He was a holder of the 1st Class Iraqi Scientists Awards for the years 2001-2002





**Associate Professor Dr. Essam Makky(PhD)**

**Universiti Malaysia Pahang (Malaysia)**

**Email: [essam22001@gmail.com](mailto:essam22001@gmail.com)**

Associate Professor Dr. Essam Makky is Associate Professor at Universiti Malaysia Pahang (UMP), Faculty of Industrial Sciences & Technology (FIST), Malaysia. He has over 22 years teaching, research and supervision experience. He served as Head of Green Technology Research Cluster (2015-2017), where he obtained Ph.D. in Applied Microbiology (2005), Master degree in Microbial Enzymes Biotechnology (2001) and got Post-doctoral Fellow from University of Seoul (UOS) (2008), South Korea. His field of interests includes Applied Microbiology, Antimicrobial activity & resistance, Medical Microbiology, Biotechnology, Bioremediation, Microbial Physiology and Microbial Nanotechnology.



**Mohamed Al-Rubeai**

**Emeritus Professor of Biochemical Engineering, Adviser to  
UNESCO and MoHE&SR, Iraq - Ireland  
University College Dublin, Belfield, Dublin, Ireland and Cihan  
University-Erbil, Iraq  
[m.al-rubeai@ucd.ie](mailto:m.al-rubeai@ucd.ie)**

Currently and since 2005, occupy a position of Chair of Biochemical Engineering, UCD. He obtained his Ph.D. in Genetics from University of London 1979. He worked as lecturer in Biology in the University of Garyounis. Lectured in the University of Birmingham in 1988. He nominated as a chair of Biotechnology department, University of Birmingham, in 2001.



**Assistant Professor Dr. Saeed Kholam Hussain**

**Assistant Professor of Immunology  
College of Medicine, Hawler Medical University,  
Erbil, Kurdistan Region, Iraq**

Born in 1954 in Khanakin, Diala, graduated from College of Veterinary Medicine, Baghdad University in 1978. He obtained M.Sc. from College of Medicine, Baghdad University in 1982. Assigned to work as assistant lecture in the department of Microbiology, College of Medicine, Salahaddin University in 1983. He has got academic title, Assistant professor in 1990 and took the responsibility of head of Microbiology department over the period from 1996 to 2006. He has 34 years teaching experience in the field of microbiology. He taught Immunology, Parasitology, Bacteriology and Virology courses for undergraduate and post-graduate students. Supervised more than 10 M.Sc. projects and has more than 20 published articles in different national and international scientific journals and his research interests are Medical immunology, Immunity to microbial agents, and molecular immunology.



**Dr. Khalid Aldabbagh**

**MBCHB, HDRMR. FACR. MACP  
Consultant Rheumatologist & Medical Rehabilitation  
Hawler Medical University/College of Medicine.  
Member of American College of Physicians.  
Fellow of American College of Rheumatology.**

He is Lecturer and his academic title promotion to assistant professor of rheumatology and rehabilitation is processing. He is member of the academic faculty in the college of Medicine, Hawler Medical University since 2016. Member of Kurdistan board for rheumatology and rehabilitation in Hawler. Supervised many post graduate students.

Former head of the rheumatology and medical rehabilitation department in Rzgary general teaching hospital. He contributed to Introduced the Medical Rehabilitation as an academic course for the medical students at 2004. Have many published papers in national and international scientific journals.

### ***Oral presentations***

Oral presentations should be handed over on common data carrier at the registration desk starting Tuesday, April 30<sup>th</sup> , between 9:00 -10:00 am. All sessions rooms are equipped with a PC and data projector. Please make sure to use either PowerPoint or PDF file format.

### ***Internet Access***

For internet access you are pleased to register at the registration desk. WLAN will be provided free of charge.

### ***Sponsoring***

3rd International Conference on Biological & Health Sciences (CIC-BIOHS' 19), Joint conference of Cihan University-Erbil and Hawler Medical University, April 30th - May 1st , 2019 sponsored by YON KOLEJİ.



## About Cihan University-Erbil

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Cihan University-Erbil is a private English-speaking institution, one of the first and finest universities established in Erbil, Kurdistan, Iraq. It was approved by the Kurdish Ministry of Higher Education and Scientific Research in 2006 and operated for the first time in 2007. Spread over 127.000 m<sup>2</sup>, the university campus consists of newly-built, modern, fully-equipped and spacious complex of buildings which hosts its academic departments, administration offices and student service facilities. Cihan University consists of six colleges:

College of Law and International Relations  
Department of Law  
Department of International Relations and Diplomacy

College of Health Technology  
Department of Physiotherapy  
Department of Nutrition  
Department of Community Health

College of Engineering  
Department of Communication and Computer Engineering  
Department of Architectural Engineering  
Department of Civil Engineering

College of Science  
Department of Computer Science  
Department of Biology

College of Arts and Letters  
Department of English  
Department of Translation  
Department of Interior Design  
Department of Media  
Department of Sport

College of Administrative and Financial sciences  
Department of Accounting

Department of Business Administration  
 Department of Banking and Financial Sciences  
 Department of Public Administration  
 Department of Health Administration

According to the National University Rankings (NUR) announcement on December 5, 2018 by the Ministry of Higher Education and Scientific Research for 2016-2017 and 2017-2018, Cihan University-Erbil is among the top five private universities in Kurdistan. Furthermore, Cihan University - Erbil is the second on all universities in Iraq and the first on all universities in Kurdistan region in the Google Scholar Citations Report.

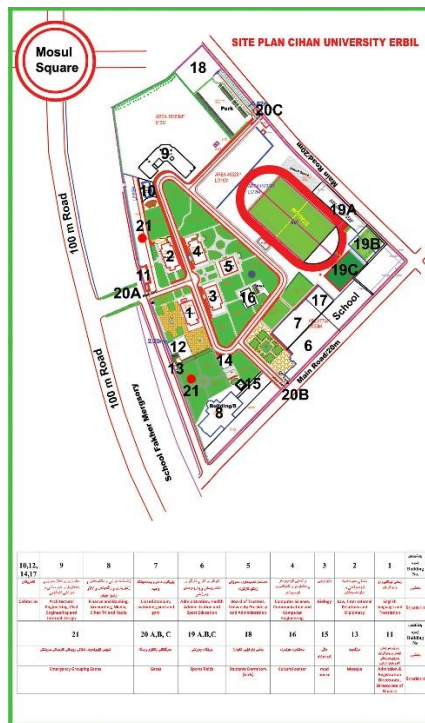


Figure 1 Cihan University-Erbil Map

# Site Plan





## Floor Plan

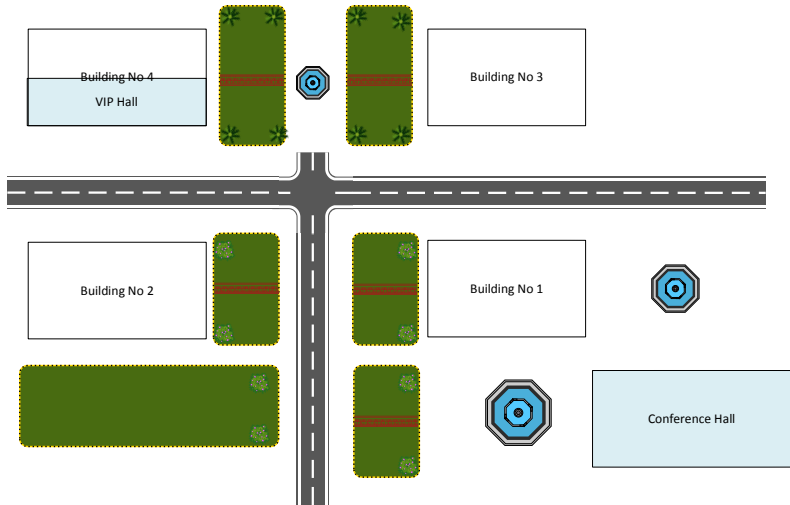


Figure 2 Floor Plan

## **Abstracts**

# **Track Medical Microbiology and Immunology**

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Session 1

(Conference Hall)

**April 30<sup>th</sup>, 2019**

**12:00-13:00**

## **Significance of HBV Diagnosis by RT-PCR over Serological Markers in HBV Patients**

Amer Ali Khaleel<sup>1</sup>, Salah Tofik Jalal Balaky<sup>1</sup>, Saeed Ghulam Hussain<sup>2</sup>

<sup>1</sup> College of Health Sciences-Hawler Medical University.

<sup>2</sup> College of Medicine-Hawler Medical University, Erbil/ Iraq

Hepatitis B virus (HBV) is the leading cause of viral hepatitis, as currently over two billion people have HBV infection worldwide. Nucleic acid assay and quantitative hepatitis B surface antigen have been developed for diagnostic and therapeutic monitoring of patients with HBV infection. These tests might also show correlation between HBV DNA and HBs serostatus. The study aimed to find and analyse the frequency and impact of HBsAg seropositivity among patients revealed HBV DNA negative level via quantitative estimation of both seromarkers. RT-PCR and Elecsys assays were used for quantitative estimation of HBV-DNA and HBs antigen respectively. A total of 256 blood samples were used from patients referred for either diagnostic purpose and/or HBV viral load monitoring after anti-viral therapy. Blood profile analysis showed 12.26% HBs antigen seropositivity among patients revealed negative for nucleic acid assay for HBV-DNA. Positive HBs antigen titers ranged from 1000-50000 COI, with sero-negative anti-HBs antibody test for all samples tested positive for HBs antigen. This study delineated that negative or undetectable quantitation of HBV DNA level does not exclude HBV infection; as the level might fluctuate in different phases of HBV replication. This gives an impression and raising a question about significance of replacing test for HBsAg with quantitation of HBV DNA PCR assay. Thus the study refers to a special HBV profile outside the classical pattern.

**Keywords-** HBV, Hepatitis, Quantitative HBV-DNA, HBsAg.

## **Prevalence and characterization Of Hepatitis B and Hepatitis C infection among Blood donors in Blood Bank of Erbil**

Chato Ali taher and Goran Noori Salih

Collage of Medicine, Hawler Medical University

**Background:** Blood transmitting infectious disease still remains a considerable global health problem. Hepatitis B virus (HBV) and hepatitis C (HCV) Virus C are two of the most common transmitted infectious diseases. **Methods:** This prospective cross-sectional study conducted in Dec of 2017 to Feb of 2018 at Directorate of Blood Bank in Erbil Province of the north of Iraq. During that period a total of 6173 blood donors were donated blood, all blood donors were asked a group of questions through a structured questionnaire designed for such purpose. These patients were serologically examined for HBV and HCV. Positive blood samples were further analysed serologically and confirmed by real-time polymerase chain reaction (RT-PCR). **Results:** Among 6173 blood donors who investigated for HBV, 7 (0.11%) and 98(1.6%) were positive for hepatitis B surface antigen (HBs-Ag) and hepatitis B core Antibody (HBc-Ab) respectively. While during screening for HCV, 4 (0.06%) were positive for HCV-Ab. Co infection (dual infection (HBV and HCV) were positive in 1 patient (0.01%). Among 98 reactive samples, (75.5%) were positive for Hepatitis B surface Antibody (HBs-Ab), the rest 24 samples (24.5%) were regard as occult hepatitis B infection since they are positive for (HBc-Ab), while negative both for HBs-Ag and HBs-Ab. The diagnosis of OBI could be confirmed by RT-PCR in 8 samples (33%) of samples. **Conclusion:** The over all incidence of HBV and HCV among examined blood donors were 0.5 %, and 0.06% respectively. Among those 0.39% were diagnosed as OBI. To prevent viral transmission through blood transfusion we need to combined different sensitive method for HBV detection as well as evolving tests that have high sensitivity and specificity for serological markers, As well as developing molecular tool that are sensitive enough for detecting very low copies of viral DNA.

**Keywords-** Hepatitis B, Hepatitis C, Blood donors, HBc-Ab, HBs-Ag, HBs-Ab

## **Characterization of *Lactobacillus* isolates from human mouth and feces as probiotics**

Wala'a Shawkat Ali, Aya Talal Reza

Department of Biology, College of Sciences, University of Baghdad

Locally *Lactobacillus* isolates; *Lactobacillus fermentum* Lb2, *Lactobacillus rhamnosus* Lb9 and *Lactobacillus paracasei* Lb10 were investigated in order to characterize them as probiotics. In comparison with the other two isolates, the isolate *L.fermentum* Lb2 was able to grow in all pH values and was able to grow in the presence of different concentrations of bile salts, also this isolate exhibited high surface hydrophobicity (77.26%), while the other tested isolates; *L. rhamnosus* Lb9 and *L. paracasei* Lb10 revealed moderate adhesion abilities, 68.56% and 65%, respectively. Antibiotics susceptibility profile showed that the tested *Lactobacillus* isolates were sensitive to ampicillin, amoxicillin and erythromycin, while they were resistant to the other antibiotics that used in this study. In conclusion, *L.fermentum* Lb2 exhibited good probiotic behavior in respect of acid and bile salt tolerance as well as adhesion ability to hydrocarbons.

**Keywords-** *Lactobacillus*, probiotic, acid and bile salt tolerance, cell surface hydrophobicity.

## **Anti-Toxoplasma, Anti-Rubella and Anti-CMV Antibodies in Dumpsite Workers of Erbil Governorate**

Tanya Salam Salih, Ameena Sabah Mahmood Juma, Muhsin Hmeadi Ubeid

Department of Biology, Cihan University-Erbil, Kurdistan Region, Iraq

**Objective:** To detect the presence of anti-Toxoplasma, anti-Rubella and anti-CMV antibodies in the sera of dumpsite workers of Erbil Governorate. **Methods:** 89 male dumpsite (Kany Qrzhala, Erbil Governorate) workers were included in this study. Serum was obtained for the detection of anti-Toxoplasma, anti-Rubella and anti-CMV antibodies using an automated Cobas E411 immunoassay analyzer. **Results:** No anti-Toxoplasma IgM antibodies were detected in any of the workers' sera, while (25.84%) showed a positive result for anti-Toxoplasma IgG antibodies. All workers' sera had no anti-Rubella IgM and IgG2 antibodies, while (62.92%) of them revealed the presence of IgG1 in their sera. Anti-CMV IgM was found in (2.25%) of the sera, while (13.50%) of the sera revealed the presence of anti-CMV IgG antibodies.

**Keywords-** Toxoplasma gondii, Rubella, CMV, Dumpsite workers, Solid Waste Disposal, Municipal Solid Waste.

**Track Medical Microbiology and Immunology**

**Session 2**

**(Conference Hall)**

**May 1<sup>st</sup>, 2019**

**14:30-15:45**

## **Prevalence of anti- *Helicobacter Pylori* antibodies among Students of Cihan University- Erbil**

Hadi Mahdi Alsakee, Sarah Hoshyar Maroof, Gulistan Hussein Muhammad, Asia Sherzad Muhammad, Ilaf Abdulrazaq Rashid, Naza khan Tofiq Sdiq

Department of Biology, Cihan University-Erbil, Kurdistan Region, Iraq

*Helicobacter pylori* (*H.pylori*) is resident in human stomach and causes chronic disease (peptic ulcer and gastritis). The mouth and colon were both known to host a large number of microbes. This study was carried out to investigate the sero-prevalence of *H.pylori* infection among Cihan University students. A total of 197 blood samples were collected from the students (53 female and 144 male) from 13 departments of Cihan University- Erbil and tested for anti-*H.pylori* anti bodies, using rapid immunochromatography assay. Among 197 students tested, 44 (22.3%) showed positive reaction for *H.pylori*, 32 male and 12 female. It was non-significantly higher among students with ages ranged between 29-32 years old. Twenty one of infected students were using tap water for drinking. Twenty six (59.1 %) of positive students experienced no symptoms, 18 (40.9 %) were symptomatic (13.63 % epigastric pain, 27.2 % abdominal pain). *H. pylori* infection is relatively high among Cihan University students.

**Keywords:** *Helicobacter pylori*, Prevalence, Anti- *H. pylori* antibodies, Immunochromatography assay.



**Immunological aspects of *Trichomonas vaginalis* infection in women attending Maternity Teaching Hospital and some public health centers in Erbil Governorate, Northern Iraq**

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<sup>1</sup> Public health Medical Laboratory, Erbil, Iraq

<sup>2</sup> Department of Biology, Cihan University-Erbil, Kurdistan Region, Iraq

*Trichomonas vaginalis* infection is one of the sexually transmitted diseases. It is a health problem all over the world, including Iraq. It has also been associated with adverse outcomes of pregnancy and increased risk of HIV. Trichomoniasis typically elicits aggressive local cellular immune responses with inflammation of the vaginal epithelium and exo-cervix in women and urethra in men. The present study was aimed to assess serum level of IFN- $\gamma$ , IL-10, C reactive protein, anti-phospholipid, anti- cardilipin antibodies with Eosinophil count as well. Four hundred and forty women with ages ranged between 16-60 years old (average of 34.2 years) who attended Maternity Teaching Hospital and a number of public health centers in Erbil Governorate, were screened for trichomoniasis by direct wet mount preparation and culture technique. Serum IFN- $\gamma$ , IL-10, anti-phospholipid, anti- cardilipin were assessed by ELISA. CRP and eosinophil count were assessed by I CROMA and coulter, respectively. The results revealed that IL-10 level ( $96.46 \pm 1.97$  pg/ml vs  $91.86 \pm 1.48$  pg/ml), eosinophil count ( $0.1 \pm 0.07 * 10^3 / \mu\text{L}$  vs  $0.1 \pm 0.01 * 10^3 / \mu\text{L}$ ) and C-reactive protein concentration ( $2.55 \pm 0.74$  mg/l vs  $2.27 \pm 0.37$  mg/l) were non- significantly ( $P > 0.05$ ) changed in infected women in comparison with negative control group. However,

serum IFN- $\gamma$  level ( $484.83 \pm 38.35$  pg/ml vs  $372.15 \pm 9.49$  pg/ml) was significantly ( $P < 0.05$ ) elevated in infected women comparing with control group. The results also revealed significant increase ( $P < 0.05$ ) of anti-phospholipid IgG antibodies ( $4.75 \pm 0.3$  U/ml vs  $3.79 \pm 0.11$  U/ml) in the sera of infected women but anti-phospholipid IgM, anti-cardiolipin IgG and anti-cardiolipin IgM antibodies were non significantly altered in response to *trichomonas vaginalis* infection. Trichomoniasis increases serum level of IFN- $\lambda$  and anti-phospholipid IgG antibodies.

**Keywords:** Trichomonas vaginalis infection, Trichomoniasis, proinflammatory cytokines, IFN- $\gamma$ , IL-10, C reactive protein, anti-phospholipid, anti-cardiolipin antibodies, Eosinophil, ELISA

## **Isolation and Identification of Probable Pathogenic Bacteria from The External Body Parts of Ants Collected From Erbil City**

Mustafa B. Ahmad<sup>1</sup> , Muntaha S. Omer<sup>1</sup> , Abdullah M. Ali<sup>1</sup> , Krekar H. Awla<sup>1</sup> ,Shamal A. Hamadamen<sup>1</sup> , Rekar A. Ahmad<sup>1</sup> and Wand K.Ali<sup>2</sup>

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There is abundant opportunity for ant to become contaminated and transfer pathogens. This study has been conducted with the aim of isolating and identifying the probable pathogenic inoculations of the ants in kitchens of two main localities (three houses and three restaurants) in Erbil city. Adult ants were collected by means of hand and then transferred to lab for microbiological analysis. The results for the number of bacteria /insect on the external body parts of ants *Messor mediorubra* Santschi during the studied months from different houses and restaurants of Erbil city showed that the grand mean of bacteria /ant counted from the three studied houses was reached (9713 for Brayate house, 6848 for Taajel house , and 3958 for Sharawane house) bacteria respectively with significant difference for the various studied months while the grand mean of the three studied restaurants was (1432 for Bazaar resturant, 963.4 for Taajel resturant , and 911.4 for Abu shahab restaurant) bacteria respectively with significant difference for the various studied months . Four bacteria species were isolated from external body surface of the studied ant in which the species *Staphylococcus spp.*, *Microoccus spp.* and *Escherichia coli* had the significantly highest rate of infection, while *Streptococcus spp.* was the minimum bacteria species and the species in restaurants were more abundant than the houses. Hot and humid weather of the Erbil city, provide suitable conditions for ants activities during the year. Thus suitable and applicable control methods for urban ants should be adopted to minimize the risk of infection in kitchens.

**Keywords:** Pathogenic Bacteria, Ants, Erbil city, Iraq

## **Study Of Efflux Pump of Multidrug-Resistant To *Staphylococcus aureus* By Cart Wheel Test**

<sup>1</sup>Asma Karomi, <sup>1</sup>Aryan Kakil, <sup>2</sup>Muhsin Edham

<sup>1</sup>College of Science / Kirkuk university

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Efflux pump is a very important mechanism for causing multidrug-resistant to the antibiotics in *Staphylococcus aureus* bacteria. Efflux pump detection was confirmed by EtBr-agar cartwheel method on Kirkuk and displaced people isolates. 43 (51.19%) of the isolates showed positive result and they were multidrug-resistant (MDR) isolates. The rate of MDR was 19 (22.62%) in Kirkuk isolates but in displaced people it was 24 (28.57%) maybe it was because of the living conditions in the camps. Our study was aimed for detecting efflux pump in *Staphylococcus aureus* isolates from displaced and Kirkuk people.

**Keywords-** Efflux pump, Multidrug-resistant , *Staphylococcus aureus*

# **Track Health Care**

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**Session 1**

**(Cihan Academia)**

**April 30<sup>th</sup>, 2019**

**12:00-13:00**

## **Nutritional characteristics of pregnant women and its relation with anemia during pregnancy in a sample of Kurdish women/Iraq**

Rushna Ghazi Abdulwahid, Hamdia Mirkhan Ahmed

College of Health Science / Hawler Medical university

**Background and objectives:** Anemia in pregnancy is a major public health problem, especially in developing countries. This study aimed to assess the nutritional characteristics of pregnant women and find out its relationship with anemia during pregnancy. **Methods:** A descriptive, cross-sectional study was conducted on 600 pregnant women who attended four primary health care centers which randomly selected according to geographical area. A specially designed questionnaire was prepared by the researcher after extensive review of relevant literatures. Severity of anemia is determined according to Alene & Dohe. Estimation and calculation of dietary characteristics was done according to Food Frequency Questionnaire (FFQ). Following statistical procedures were applied; frequencies and percentage, mean and standard deviations, chi-square test of association and regression analysis. **Results:** there was a highly statistically significant association between anemia with eating vegetables and chicken, and a high significant relation of anemia with eating beef, eating nuts. Also there was a highly significant association between severity of anemia with eating nuts, and a significant association with eating vegetables, while there was no significant association with other variables. Logistic regression analysis revealed that eating less than normal of vegetables, beef and nuts were indicated risks of anemia. **Conclusion:** Eating less than normal of vegetables, beef and nuts were indicated risks of anemia during pregnancy.

**Keywords-** Nutrition, Diet, Anemia, Pregnancy

## Effects of aerobic exercise in decrease “Low Back pain” in pregnant females

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<sup>2</sup> Physical Education, College of Education-Shaqlawa, Salahaddin University-Erbil, Kurdistan Region, Iraq

**Background:** In time of Victoria Queen, all of pregnant females must be doing contracture of their abdominal muscle and elevated their foot above of surface body and daily walking for better life style in pregnancy period. The study is to identify the effects of aerobic exercise in decrease back pain in pregnant women. **Methods:** prospective and case-control study level of evidence 1.a single-blind prospective and case-control study. In this study, 18 pregnant patients with mean age 25 years old in 5th month of pregnancy was studied. The study shows pain before and after exercise according pain scale according to pain scale American anesthesia, we used t-pair test. The study compared same group before & after test. This study was done in 4 months. All of them did exercise according to coaching association of Canada, aerobic exercise, two times in week and 60 minutes in each séance from April- to July 2018. Follow up was done for 6 months. Group takes any medications for pain control during exercise. Data was record as mean  $\pm$  SD **Results:** The severity of pain was 64.5% before exercise that after exercise becomes decrease to 9.8% in group. According to pain scale, pain was  $70 \pm 6$  that after exercise decrease to  $11 \pm 30$  in group ( $P < 0.025$ ). The pain score was 100% before exercise that after exercise become decrease to 18% in group ( $P < 0.025$ ).

**Conclusion:** The authors found significant difference decrease pain after exercise therapy in pregnant females,  $P < 0.025$ . According to this study is recommending aerobic exercise for presentation in Low Back Pain in pregnant women.

**Keywords-** Aerobic exercise, “Low Back pain”, pregnant female

Track Health Care  
Session 2

**(Conference Hall)**

**April 30<sup>th</sup>, 2019**

**14:30-15:45**



**Breast Cancer Screening Knowledge, Attitudes and Practices of  
Women Attending To Primary Health Care Centers In Erbil City  
Kurdistan Region/Iraq**

Kareem Fatah Aziz

College of Nursing / Hawler Medical University

Back ground and objectives: Breast cancer is by far the most frequent cancer in women worldwide. It is one of the leading causes of cancer mortality in women and constitutes 15% of female cancer deaths. The incidence rates of breast cancer are increasing in most countries at a younger age than ever before, and these changes are usually greatest where the rates had been previously low. In Saudi Arabia, while it had once been presumed that the incidence of breast cancer in women was low, more recent data has indicated that breast cancer has become a significant disease in this community, as it is elsewhere in the. The objectives of the study are to identify knowledge, attitudes, and practices of women regarding breast cancer screening. Methods: It is a descriptive cross-sectional design. The study conducted in main PHC Centers in Erbil City of Kurdistan region / Iraq. The study conducted from 1-11-2018 to 1-4-2019 the sample size included 200 women who attending to health centers in Erbil. Inclusion criteria included, mothers who attend to PHC Centers, and mothers who have desire to participate in the study while exclusion criteria included mothers who have not desired to participate with the study. Data were collected with interview technic with mothers, using the questionnaire. The questionnaire consists of four main parts. Part

one is related to social demographic characteristic of the mothers which include (age, address, duration of marriage , certification, type of family, and occupation). Second part consists of statements related to mother's knowledge about breast cancer screening , Part three included items related to mother's attitudes about breast cancer screening and part four consisting of items related to their practices about breast cancer screening .The tool was viewed to panel of experts in nursing field for validity. Results :The results of the study revealed that 49% of them not agreed with the knowledge ,most of them(76%) were agreed with attitudes, while most of them 49% never practiced screening test for breast cancer, there was significant association between certification, occupation and their knowledge ,there was significant association between age ,certification and their attitudes, while there was significant association certification, occupation and their practices about screening tests for breast cancer.

Conclusion: most of them not agreed with the knowledge about screening tests. Most of them (76%) were agreed with attitudes of breast cancer, Most of them 49% never practiced screening test for breast cancer , There was significant association between certification, occupation and their knowledge, there was significant association between age, certification and their attitudes, while there was significant association certification, occupation and their practices about screening tests for breast cancer.

**Keywords-** Breast Cancer, Breast Cancer Screening, Health Awareness

**EFFECT OF SCHOOL BAG WEIGHT ON PAIN PERCEPTION  
AMONG BASIC (PUBLIC AND PRIVATE) SCHOOL  
STUDENTS IN  
ERBIL CITY**

Shukir Saleem Hasan

College of Nursing / Hawler Medical University

School bags or backpacks are bag for carrying textbooks and school supplies. School age children are in critical stage of their development. The aim of this study is to assess the pain perception and level of pain among basic school students, while carrying school bag. This is a descriptive cross sectional study, started from 10th of Feb to 20th of May 2016. A cluster (multistage) probability sample of 359 students who attended nine publics and private basic school in Erbil city was used. A standard Nordic tool was used to evaluate pain perception. Validity of the tool was determined through a panel of the experts. Social Package of Statistical Science (SPSS, version 21) was used to analysis the data. P-value  $\leq 0.05$  considered significant. The study result shows that less than half 41.70 % of the students had trouble in shoulders, 21.13% in the neck, 14.71% in the back, 5.09% in the one or both knees, and 4.91% in the wrists/hands. there were highly significant difference between students in public and private school regarding the weight of school bag/ weight \*100, duration of carriage of school bag, weight of school bag and weight of students by percentile at p-value 0.000 to 0.015 respectively, and shows that there were significant difference between public and private school students regarding pain perception at p-value 0.03 and 0.000 respectively. The results of this study concluded that carrying school bag that is more than 10% of body weight caused pain in shoulders, neck and back pain of students. There was difference between public and private school bag weights. The backpack weight percentile is recommended to be reduced to  $\leq 10$  % of body weight.

**Keywords-** School age children, Pain, Perception, School bag

## Effect of natural oil steam phase on fungi associated with car air-conditioner filters in Erbil city

Salah Mahdi Al-Bader

Knowledge University

The study aims to record the fungal contamination of cars air-conditioner filters then to evaluate the antifungal activity of steam phase of five plant oils against fungal growth in vitro. During December/ 2019 a twenty random swab samples were collected from filters of 20 cars air conditioners in Erbil city. They were cultured on Sabouraud's dextrose agar and potato carrot agar. Plates were incubated at (25oC ±2). Seven fungal genera were identified; all isolates are probable agents of pulmonary disorders. They showed various occurrence%, include *Penicillium* sp. 85%, *Alternaria* sp. 65%, *Aspergillus* (3sp.) 60% while the rest isolates were less than 20% and include *Acremonium* sp., *Rhizopus* sp., *Rodotorula* sp. and *Stachybotrys* sp., as well as yellow yeast and sterile mycelia.

The *Hacinathus* sp., *Cymbopogon citratus*, *Myrtus communis*, *Eucalptus* sp., and *Cyperus rotundus* oils were tested against fungal growth. The agar absorption assay and disc volatilization methods were followed to evaluate the antifungal activity of oils liquid and vapor phases respectively. The tested oils represented variable effectiveness on mycelia growth and sporulation. *C. citratus* oil steam phase gave the highest effectiveness against pure cultures of the commonest isolates *Penicillium* sp, *Alternaria* sp, and *Aspergillus fumigatus*.

**Keywords-** fungi , car, air-conditioner filter , plant oils , steam phase

## ANTIBIOTIC SUSCEPTIBILITY PATTERN OF ENTEROCOCCUS SPP. ISOLATED FROM POULTRY FECES

Raid Duraid Thanoon

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In recent years, enterococci, especially *Enterococcus faecalis* and *faecium* have emerged as an important nosocomial pathogen and represent a serious threat to patients with impaired host defenses. In current study, an investigation of Enterococcus spp. isolated from poultry feces and their antibiotic susceptibility pattern was studied, due to the world wide attachment with poultry by human being. Samples were collected from different sites of Allahabad-India, (80) samples collected screened for the presence of *E. faecalis* and *E. faecium* and identified based on cultural and biochemical characteristics. (35) Isolates were identified as *Enterococcus faecalis* (57.37%), while (26) were *Enterococcus faecium* (42.62%). The pathogens isolated were tested for their susceptibility towards 10 different commonly prescribed antibiotics. Most of the isolates showed resistance towards antibiotics under study. *E. faecalis* strain suggested a higher percentage of possibility of infection estimated by (15%) in comparison with *E. faecium* as it was found to be less in a screening. The high resistance rate also indicates the negative impact of the antibiotic therapy. To evaluate the extent of transmission and impact of such transmission on the effectiveness of the antibacterial use in human medicine further study is imperative. Periodic monitoring of antibiotic resistance pattern to detect any change in it would be necessary for the effective treatment against these pathogens. Enterococci revealed an alarming rate of resistance to the standard antimicrobial agents used for therapy and raised MIC values to Vancomycin. The importance and infection control was stressed.

**Keywords:** *vancomycin resistance; Enterococcus faecalis; Enterococcus faecium; poultry feces.*

## **Levels of Apelin, Endoglin and TGF $\beta$ 1 in Iraqi women with polycystic ovary syndrome**

Sanan Thaer Abdalwahab, Noor Alhuda Kh. Ibrahim, Wasnaa J. Mohammad

Dijlah University College, Baghdad , Iraq

**Background:** Polycystic ovary syndrome (PCOS) is one of the most common causes of infertility in women of reproductive age. The aim of the study was to determine the level of apelin, insulin resistance, Transforming Growth Factor beta (TGF  $\beta$ 1) and endoglin in women with polycystic ovary syndrome. **Methods:** fifty PCOS patients and 40 non-PCOS infertile patients were recruited. The fasting serum levels of follicle stimulating hormone (FSH), luteinizing hormone (LH), testosterone (T), prolactin (PRL), glucose (FBG), insulin, and apelin at the early follicular phase were measured. To further investigate the relation between apelin and IR. **Result:** Levels of apelin, LH, LH/FSH, T, and FINS, as well as homeostatic model assessment of IR (HOMA-IR) in PCOS patients, were significantly higher than in the control group. Correlation analysis showed that apelin level was positively correlated with body mass index (BMI) and HOMA-IR. **Conclusion:** Apelin levels and TGF  $\beta$ 1 were significantly increased in PCOS patients while show decrease levels of endoglin.

**Keywords:** Apelin, Transforming Growth Factor beta, endoglin

Track Health Care  
Session 3

**(VIP Hall – Building 4)**

**May 1<sup>st</sup>, 2019**

**14:30-15:45**

## **Radish juice Promote kidney stone deposition in Ethylene glycol Induced Urolithiasis in Rats**

Falah M. Aziz and Dshad H. Hassan

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University-Erbil, Erbil-Iraq,  
Biology Department, Faculty of Science, Soran University,  
Soran-Iraq

Urolithiasis is a well-known problem that Stones could form in various parts of the urinary system and it is the most common disease of the urinary tract. The current study was planned to investigate the effect of radish juice on ethylene glycol (EG) induced urolithiasis. Twenty-one rats randomly divided to 3 groups. The first group was the control group was received normal standard diet and drinking water, the second group represented the model group received 0.75 % EG in drinking water ad libitum. The third group received Radish juice (2ml/kg of body weight) by gavage plus ethylene glycol (0.75%) in drinking water ad libitum. The experiment was conducted for 28 days. The light microscope examination revealed a disturbed histological architecture of the kidney tissues including dilated renal tubules, aggregation of infiltrated leukocytes inflammatory cells and crystal deposition in the model group. The EG plus radish juice treated rats showed higher crystal density with improved renal tubule structure and alleviated inflammation. Both treated groups showed various biochemical alterations compared to control group, but the most interesting biochemical result was the significant decrease of malondialdehyde (MDA), a lipid peroxidation marker, in the radish plus EG group compared to the EG group. Scanning electron microscopy showed clear structural detail about calcium oxalate crystals in which radish treated group showed higher crystal deposition and calcified tissue compared to EG group. The present study concluded that radish juice promotes stone deposition but exerted an antioxidant effect.

**Keywords-** Urolithiasis, Ethyleneglycol, kidney stone, Radish



## **Omega-3 Oil Ameliorates Histological and Ultrastructural Alterations Induced By Cadmium Chloride in Rats Testis**

Treefa F. Ismail and Falah M. Aziz

Department of Biology, College of Education  
Department of Biology, College of Science University of Salahaddin,  
Kurdistan Region- Iraq.

Cadmium is considered as one of the major environmental pollutants which have potential threat to human health. Reports of declining male fertility have renewed interest in the role of environmental and occupational exposures in the aetiology of human infertility. Cadmium exposure led to obvious degenerative changes in testicular tissue. This study was performed to investigate the cadmium induced structural effects on the testes and to evaluate the possible protective effect of omega-3 oil in adult albino rats. Thirty adult male rats were used in the present work, divided randomly into five groups, six rats in each group; the first group was considered as control group and left without treatment except the standard rat chow and tap water. The second group was given (40 mg/ L) of CdCl<sub>2</sub> in drinking water while the third group was given (60 mg/ L) of CdCl<sub>2</sub> in drinking water. The fourth group was given (40 mg/L) of CdCl<sub>2</sub> in drinking water plus omega-3 oil (4 gm/ kg diet), while the fifth group was given (60 mg/L) of CdCl<sub>2</sub> in drinking water plus omega-3 oil (4 gm/ kg diet), the Cadmium treated rats showed dose dependent histological and ultrastructural alterations which have been ameliorated after exposure to omega-3 oil. The present investigation concluded that omega-3 played a protective role against Cadmium induced histopathological changes in rat testis.

**Keywords-** Omega-3, Cadmium Chloride, Testis, Ultrastructural

### **The Piriformis syndrome: evaluation of seven cases**

Farhad Mustafa Mousa, Zainab Aziz Bakr

Department of Physiotherapy, Faculty of Health Technology, Cihan University-Erbil, Kurdistan Region, Iraq

**Background:** Low back pain is one of the causes of Piriformis syndrome. Low back pain is second most common medical complaints encountered by physicians. More than 50 percent of the population will complain of low back pain at the same time. Piriformis syndrome may constitute up to 5% of cases of low back pain, buttock pain, and lower limb pain. **Subjects and Methods:** This is prospective and case study control. In this study, we study 268 cases with low back pain, in 268 cases 7 cases had Piriformis syndrome. We studied pain, severity pain, radicular pain, limping, and painful sitting. Evaluation of musculoskeletal, BMI, and physical examination of Piriformis sign, Frieberg sign, pace sign. Neurological evaluation was taken by paraclinical examination elevated through X-ray, CT-scan, M.R.I, and E.M.G. Data as mean +SD. And SPSS software for analysis. **Results:** In 268 cases with conservative method 100% of cases were cure treatment after 4 months, in contrast to surgery methods after 1 month. The result illustrated the significantly improved between 2 methods of treatment ( $P < 0.0025$ ). In 7 cases, 4 cases had past history of blunt trauma, one case had past history of surgery that after 6 month had complication of surgery and scare tissue that with second surgery release of scare was done with 100% cure. Anomaly of Piriformis muscle was seen in one case that surgery was done. Tumor was seen in one case that had pressure effect on sciatic nerve that surgery was done. Heterotopic ossification was seen in two case. BMI of all cases was in normal range. **Discussion:** All cases with diagnosis of disk herniation was exclude. They were need to surgical operation for herniated disk. Piriformis syndrome is differentiated primary from secondary type, in which it is done according to past history and physical examination. According to etiology of Piriformis syndrome, the treatment is different. If you see mass that compressed the sciatic nerve, you must remove it. If the patient had sacroiliitis, it must be treated in early phase. Surgery of Piriformis is not accepted by all surgeons. It is limited to release Piriformis tendon and insertion to femur.

*Keywords-* Piriformis syndrome, Case study, treatment and evaluation

## **Association of Total Dietary Fats and Its Subtypes with Risk of Breast Cancer**

Jwan Ibrahim Jawzali

College of Nursing / Hawler Medical University

Specific classes of dietary fatty acids may be important modifiers of BC risk. The study aims identification risk of specific subtypes of total fat on breast cancer. This case-control study, carried out in Rizgary Teaching Hospital in Erbil City. Included (55) cases of women, and (55) cancer free women matched to cases by socio-demographic properties; anthropometric measurements physical activity, and medical and reproductive history. Dietary data collected by semi quantitative food frequency questionnaire. They were analyzed by program for MosbysNutitric Nutrition Analysis Software, for calculation; total fat and its subtypes, energy intake, and acceptable macronutrient distribution range. Statistical analysis was done by SPSS program. Poly-unsaturated fats decreased risk of breast cancer, while saturated and mono-saturated fats increased risk among all and post menopause obese women respectively. Risk of cancer increased significantly in high intake of cooking oil, dietary red meats especially among over weight and obese patients. The study concluded that total poly unsaturated fatty acids decrease risk of breast cancer. While cooking oils and animal origin diet increase risk of breast cancer especially among obese menopause woman as a result of increased; intake of saturated, mono-and pro-inflammatory unsaturated fats, hormones imbalance and high percentage of energy from fats. Additionally meats preparation may increase carcinogenesis.

***Keywords-*** Nutrition, Lipit Profile, Breast Canser

## **Some Haematological Parameters Among Refugees in Kawrgosk Camp-Erbil Governorate**

Tanya Salam Salih, Safa Safin Haydar, Dr. Muhsin H. Ubeid and Dr.  
Ameena S. M. Juma

Department of Biology, Cihan University-Erbil, Kurdistan Region,  
Iraq

The study included 258 Syrian refugees of different ages and another 60 volunteers as control group (C.G). These refugees were in Kawrgosk camp in Erbil Governorate. Blood was collected from each individual for the estimation of WBC, Eosinophil, Iron, Hemoglobin and IgE levels. Mean serum levels of IgE among male and female refugees showed highly significant increasing when compared to C.G. Most of the refugees had normal iron levels, where iron concentrations were more than 65 mg/dl among 67 males, and more than 50 mg/dl among 104 females and 48 children, while some had iron deficiency in which the majority were female (9 males, 24 females, and 6 children had iron deficiency). In addition, hemoglobin concentrations were normal among 65 males (more than 13.0 g/dl) and 89 females (more than 11.0 g/dl) and 48 children (more than 12.0 g/dl). However, anemia was found among 8 men, 42 women and 6 children. It was revealed that there was a highly significant rising in eosinophils in male and female refugees in comparison to C.G. WBC count is non-significantly slightly increased in both males and female's refugees when compared to C.G.

**Keywords-** Haematology, Total WBC, IgE, WBC Differential Count

## **Effect of Drinking Water Hardness on Kidney Stones Formation in Ranya District**

Akram Othman Ismail

Department of Soil and Water, Collage of Agriculture, Salahaddin University

This study was conducted in Rania district, Raparin University during September, 2018 to March, 2019 to test the relation between water hardness and kidney stone formation. The investigation depended on questionnaire form which were distributed on 100 person in Raparin ( Rania ,Hajiawa and Chwarqurna ) and patients whom vested the Rania clinical during 1<sup>st</sup> .December ,2018 to 22<sup>nd</sup> of January,2019 which were 238 patients and only 20 of them had kidney stones developing which represent 8.4% of the total kidney diseases. The results indicated to significant effect of gender at level of significant 5% on kidney stones formation ,10 % of male and 18% of female having kidney stones .The results of chi square test indicated to highly significant effect of age on kidney stone formation at level of significant (0.001) . The Kidney stone formation increased from 19.23% to 75% with increase in age class from (14-34) to (54 Or more) year. The negative correlation coefficient value of ( $r = -0.63^*$ ) was recorded between water hardness and stone risk index due to high magnesium content of drinking water in the studied area.

**Keywords-** Component; Stone risk index, Total water hardness, Ca-hardness, Mg-hardness

# **Track Biochemistry and Physiology**

Session 1

**(Simulation Court Hall – Building 4)**

**April 30<sup>th</sup>, 2019**

**14:30-15:45**

## **Study the effect of hypertension drugs on lipid profile and liver function among Iraqi patients**

Mustafa Mohammed and Dr. Ammal Eemael Ibrahim

college of pharmacy / Al-Nahrain University

High blood pressure is the elevation in blood pressure of the arteries. Although the body can tolerate increased blood pressure for months and even years, eventually the heart may enlarge, which is a major factor in heart failure. Tenormin is chemically described as a benzene acetamide, 4- [2-hydroxy 1-3 [methyl ethyl] amino] prosody]. Tenormin has a molecular weight of 266.34 g/mol. Capoten chemically described as a 1-(3-mercapto-2-D-methyl-1-oxopropyl) - 1-proline (S,S), is used for inhibition of angiotensinogen-converting enzyme. To compare between the effect of Capoten and Tenormin on lipid profile and liver function in patients with hypertension and to study which of them is suitable for patient whom turned to have diabetes or liver dysfunctions. This study done from April 2013 to September 2013. This study includes forty patients with high blood pressure (hypertension) whom divided into two groups: group (A) which included twenty patients use Tenormin as treatment for hypertension and group (B) which included twenty patients use Capoten as treatment for hypertension. All patients admitted to AL-Yarmok Hospital. Control group (C) were included twenty healthy subject matched in age and sex. Lipid profile, GPT, GOT, albumin and glucose were determined by enzymatic method. The results of group (A) show significant elevation of total cholesterol, LDL, glucose, negative correlation was found between total cholesterol, LDL, LDL/HDL ratio and glucose, the result group (B) show significant elevation of glucose, negative correlation was found between capoten with total cholesterol, LDL and LDL/HDL ratio. Capoten is more suitable to treat patient with liver dysfunction, while tenormin is more appropriate to treat patient with diabetes mellitus.

**Keywords-** *lipid profile, Hypertention, liver function*

## **In vitro screening of seed extracts of medicinal plants for protease inhibitory activity**

### **Short title: PIs activity from medicinal plants**

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Salahaddin University-Erbil, Kurdistan region, Iraq

Protease inhibitors (PIs) are deployed in the plant kingdom as storage proteins or peptides, regulators of endogenous proteases and plant protection agents against insect pests and pathogen attack. In humans, they are identified as chemo preventive agents against a range of cancers and have potential as drug to treat an array of disease associated with aberrant activity of proteases. The present investigation reports PIs activity data from thirty medicinal plants. The screening for PIs activity was done by dot blot assay using X-ray film coated with gelatin. Among screened seed extracts, *A. lebbeck*, *Raphanus sativus*, *Mucuna pruriens*, *Achyranthes aspera* and *Coffea arabica* showed high inhibitory activities with trypsin protease. Most of seed extracts exhibited moderate activity whereas *Ocimum sanctum* showed moderate to low activity against trypsin. The presence of varied protein content is reported from all seed extracts with highest in *Albizia lebbeck* ( $50.0 \pm 3.4$  mg/ml). The data produced in the present investigation could be helpful for further exploration of PIs as therapeutic agent.

**Keywords-** *seed extracts, medicinal plants and protease inhibitor*



## Exploration of amylases producing competency of *H. armigera* gut bacterial strain, *Bacillus subtilis* RTSBA6 6.00

Ashok A. Shinde<sup>1</sup>, Faiyaz K. Shaikh<sup>1</sup>, Sarwan W. Hamad<sup>2</sup> and Manvendra S. Kachole<sup>1</sup>

<sup>1</sup> Department of Biotechnology, MGM's Institute of Biosciences and Technology, Aurangabad, Maharashtra, India.

<sup>2</sup> Department of Biology, College of Science, Cihan University-Erbil, Kurdistan region, Iraq

The *Helicoverpa armigera* (Hubner) (Lepidoptera: Noctuidae) is a polyphagous insect pest of agriculturally important crops. The alkaline gut of this insect pest possesses diverse bacterial communities which may assist in digestive physiology. As part our investigations of understanding the role of gut bacterial communities in insect gut, here amylase producing competency of earlier identified *H. armigera* gut bacterial strain i.e. *Bacillus subtilis* RTSBA6 6.00 is reported. Initial screening for amylase activity was assessed by starch agar plate. Upon 7% SDS-PAGE amylase zymography, bacterial culture supernatant produced seven amylase bands on the gel. The observed molecular weights of amylases were 191.2 KDa, 158.0 KDa, 131.7 KDa, 54.0 KDa, and 31.3 KDa, 67.2 KDa and 44.6 KDa respectively. Considerable amylase activity was observed in neutral to alkaline pH with optimum at pH 6.8. The optimal activity temperature of amylases was found to be 50°C and the activity decreased dramatically at temperatures above 75°C.

**Keywords-** amylases, *Helicoverpa armigera*, zymography, *Bacillus subtilis*

## **The effect of methimazole treatment on lipid profile and kidney functions in patients with hyperthyroidism**

Teeba Baher and Ammal Esmaeel Ibarahim  
college pharmacy / Al-nahrain university

Hyperthyroidism caused by an increase in amount of thyroid hormones (T3 and T4) that produced by an enlarged thyroid gland. Methimazole drug is a thioureylene antithyroid drug, which inhibits the synthesis of thyroid hormones. Its chemical formula is C<sub>4</sub>H<sub>6</sub>N<sub>2</sub>S. Methimazole is used to control the symptoms of hyperthyroidism associated with Graves' disease and to maintain patients in a euthyroid state for several years. Investigate the effect of methimazole drug on lipid profile level and renal function in patients with hyperthyroidism. This study conducted during the period from April 2012 to August 2012. This study includes twenty eight patients with hyperthyroidism that divided into two groups: group (A) which included fourteen patients with drug and group (B) which included fourteen patients without drug. All patients admitted to the AL- Baghdad Hospital. Subject matched in age, sex and BMI. In this study: Lipid profile, urea, creatinine, albumin, glucose were determined by enzymatic method. The results of group (A) show that were significant elevation of glucose and Albumin. Negative correlation was found between glucose, LDL and total cholesterol, the results of group (B) show a correlate between cholesterol and LDL with thyroid hormone. The results show a negative correlation between glucose and methimazole that lead to consider methimazole suitable treatment for patient with hyperthyroidisms that have family history with diabetes mellitus.

**Keywords-** Methimazol, lipid profile, hyperthyroidism, kidney function

# **Track Cell Biology and Genetics**

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Session 1

**(Simulation Court Hall – Building 4)**

**May 1<sup>st</sup>, 2019**

**14:30 - 15:45**

## **Investigation of the Zinc Oxide Nanoparticles Effect on Thyroid and Testosterone Hormones in Male Rats**

Noori Mohammed Luaibi and Noor Ali Zayed

Biology Department, College of science, Mustansiriyah  
University of Baghdad-Iraq

Exposure to zinc oxide nanoparticles has been increasing steadily, causing more attention being paid to their potential toxicity, including cytotoxicity and genotoxicity. Hence this study aimed to investigate the effect of ZnO NPs on thyroid hormone Triiodothyronine (T3), Thyroxin (T4) and (Thyroid stimulating hormone) TSH as well as testosterone hormone in male adult rats. A total of 54Spargue-Dawley albino adult male rats were divided into nine groups each of 6 rats, daily treated intra-peritoneal with ZnO NPs two different doses (30,60)mg /kg in three different periods of time (7,14 and 28) days, as following : Control groups (group 1,2,3) : respectively received intra-peritoneal injection with distilled water for( 7,14, and 28) days, Experimental groups (group 4,5,6) : they were rats respectively received intra-peritoneal dose (60mg/kg) of zinc oxide nanoparticles for (7, 14 , and 28) day, and group (7,8,9) experimental groups: were rats respectively received intra-peritoneal dose (30 mg/kg) of zinc oxide nanoparticles for (7, 14, and 28) days. Data showed high significant decrease( $p < 0.01$ ) in level of T3, T4, TSH and level of testosterone also decrease at high and low dose for 7,14 and 28 days.

**Keywords-** *Zinc Oxide, Nanoparticles, Thyroid Hormons and*

*Testosterone Hormones***Genotoxic effect of Cigarette and Shisha Smoking on Buccal mucosa cells of young adult in Duhok, Kurdistan region of Iraq**

Dian Jamel Salih

College of Medicine / University of Duhok,

Cigarettes and Shisha smoking is popular in many parts of the world. The evidences on cytotoxic and genotoxic effects of Shisha smoking are very rare and controversial. The aim of this study was to assess the micronucleus frequency exfoliated buccal mucosa cells in young smokers and assess whether micronucleus levels are higher in Shisha smokers than in cigarettes smokers. We examined oral smears of 60 adult cigarettes smokers; Shisha smokers and never smoked tobacco in Duhok city in Kurdistan region of Iraq. The total number of micronuclei per 1000 cells per subject was compared. The frequency of micronuclei in exfoliated buccal cells in healthy control ranged (0-4), in smokers ranged from (4-10), while in Shisha smoking ranged from (3-16). The average micronuclei frequency in healthy control was  $(2.5 \pm 7)$ , in smokers was  $(8.3 \pm 4)$  and in shisha smoking was  $(10.2 \pm 9)$  per 1000 binucleated cells. A significantly higher frequency of micronuclei ( $p < 0.05$ ) was determined in cigarette and shisha smokers. The cytotoxic effect of cigarette and Shisha smoking on buccal mucosa cells was significantly higher than nonsmokers. Increasing the smoking duration could heighten the frequency of micronucleus.

**Keywords-** Shisha smoking, tobacco, buccal cells, micronuclei, cytogenetics

## **Cytotoxic effects of Pistacia khinjuk seeds extracts on different cell lines and its mitogenic effects on blood lymphocyte In vitro**

Reshna Kamal Ahmad Albarzanji, Kawa Fariq Dizaye and  
Asaad Abdulwahed AL-Asady

Hawler Medical University / Duhok University

Reports indicated that extract of Pistacia khinjuk has anti-inflammatory, antipyretic, antibacterial, antiviral effect in treating diarrhea and throat infections and has hepato-protective effects against acetaminophen and carbon tetrachloride. This study was undertaken to investigate the possible cytotoxic effects of methanolic and aqueous seeds extract of Pistacia khinjuk on different tumor (Rabdomyosarcoma (RD) and Murine mammary adenocarcinoma (AMN3)) and normal cell lines (Murine fibroblast) and its mitogenic effects on blood lymphocytes. The cytotoxic effects of Pistacia khinjuk seeds extracts were evaluated on two tumor cell lines, Rabdomyosarcoma (RD) and Murine mammary adenocarcinoma (AMN3), and one normal cell line, Murine fibroblast (L20B). Moreover, the mitogenic effects of the plant extract were studied, on human blood lymphocytes. Both methanolic and aqueous seeds extracts of P. khinjuk significantly induced tumor cell lines and the normal cell line proliferation, especially in highest concentrations. The results show that the extracts induced significant increases in human blood lymphocyte proliferation at 72hrs. This activity of plant extracts recommends it as a good mitogenic agent in researches. Seed extracts of P. khinjuk induced proliferation of all tested cell lines. High concentrations of both aqueous and methanolic seed extracts of P. khinjuk showed mitogenic effects.

**Keywords-** Pistacia khinjuk, Tissue culture, proliferative effect, mitogenic effect.

## **Will Timing IUI Insemination to Ovulation Help Increase Pregnancy Rate?**

Ghofraan A Attallah

Department of Obstetrics & Gynecology / UNIVERSITY OF MALAYA (UM), Kuala Lumpur, Malaysia

Intrauterine insemination (IUI) is a widely used fertility treatment for couples with unexplained subfertility. Over the last 30 years the IUI pregnancy rates have remained stagnant around 10-15% following 4-6 well timed cycles of insemination. This study aims to assess different timing of IUI insemination and its effect on the clinical pregnancy rate in women with unexplained infertility. A total of 54 patients aged less than 35 years old, had controlled ovarian hyperstimulation treatment followed by IUI at 36 hrs post-hCG trigger (Group 1, n=26) or immediately after ovulation (Group 2, n=28), as the follicles were closely monitored for evidence of ovulation every 2 hrs using transvaginal scan at 33-40 hrs post-hCG. In timed ovulation group, 60.7% of the patients ovulated at 33-35 hrs post-hCG with 23.5% pregnancy rate, whereas only 30.7% ovulated at 36-40 hrs post-hCG with only 9.1% pregnancy rate. However, pregnancy rates were found to be 34.6% in Group 1 and 17.9% in Group 2 with no statistical difference. Anyway, a larger study could be more conclusive. Insemination at 33-35 hrs post-HCG may result in higher pregnancy rate than those inseminated after 36 hrs.

**Keywords-** IUI, Insemination time, ovulation time, pregnancy rate.

**Bromodomain Inhibitor JQ1 as a candidate  
therapeutic agent in Malignant Pleural Mesothelioma**

CINARIA TARIK ALBADRI

St. James's Hospital, Trinity Centre for Health Sciences, Trinity  
College Dublin University, Ireland

Malignant Pleural Mesothelioma (MPM) is a rare tumor that develops from the mesothelial linings of the pleural, pericardial and peritoneal cavities. The actual risk factor for developing the disease is exposure to asbestos in workplace. Bromodomain and extra terminal domain (BET) proteins are epigenetic signaling agents that associate with acetylated histones and expedite the transcription of target genes. Objectives: This study investigates whether the small molecule BET protein inhibitor JQ1 specifically may be an effective therapy for MPM. Methods: RT-PCR methods reveal an inclusive change in gene expression implying that JQ1 is a potential inhibitor which targets the BET proteins. Results: Our results report that JQ1 has tumor suppressive effects as it significantly ceased cellular activity in MPM cells lines. We predict that JQ1 may be the promising therapy for pleural mesothelioma cancers.

**Keywords-** JQ1, Bromodomain and extra terminal domain, Malignant Pleural Mesothelioma



## **Investigate the inhibitory effect of silver nanoparticles (AgNPs) against some species of *Candida* and pathogenic bacteria**

Sura Muayad Abdul Majeed

Department of Biology, College of Science, University of Baghdad, Baghdad, Iraq.

The antimicrobial activity of silver nanoparticles synthesized from aqueous extract of mushroom *Pleurotus ostreatus*, was evaluated for pathogenic *Candida* spp. and bacteria by means of the determination of inhibitory concentration. The silver NPs exhibited inhibitory effect against the both tested yeasts and bacteria species at the concentration of 12.5 mg/ml- 100mg/ml. The antimicrobial activity which conducted against different pathogenic bacteria and *Candida* spp. such as *Candida albicans*, *Candida guillermondii*, *Candida krusei*, *Candida zeylanoides*, *Geotrichum ktebahnii*, *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Escherichia coli*. The maximum inhibition zone was observed against *C. zeylanoides* at the concentration 100 mg/ml. while the minimum inhibition zone was observed against *Geotrichum* at the concentration 25 mg/ml, and the concentration 12.5 mg/ml was not effective against some species.

**Keywords:** Silver nanoparticles, *Pathogenic bacteria*, *Pleurotus ostreatus*, *Pathogenic Candida*, and antimicrobial agents.

# **Closing Ceremony and Awards**

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**(Conference Hall)**

**May 1<sup>st</sup>, 2019**

**16:00 PM**

# **Workshops**

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## Workshop 1

### **Infection Control in Hospitals**

**Session 1**  
**(Conference Hall)**  
**May 1<sup>st</sup>, 2019**  
**09:00-09:45**



**Infection control and international guidelines**

Assistant Professor Dr. Samir M. O. Al-Najar  
MBCHB, M.Sc., Ph.D. Community Medicine  
College of Medicine, Hawler Medical University

**Session 2**  
**(Conference Hall)**  
**May 1<sup>st</sup>, 2019**  
**10:00-10:45**



**Probiotics an alternative of antibiotics**

Assistant Professor Dr. Wala'a Shawkat Ali  
B.Sc., M.Sc., Ph.D. Microbiology  
College of Sciences, University of Baghdad

**Session 3**  
**(Conference Hall)**  
**May 1<sup>st</sup>, 2019**  
**11:00-11:45**



**Surgical-site infection prevention and control**

Dr. Soza Tharwat Baban

B.Sc., M.Sc., Ph.D. Bimolecular Sciences (UK)

College of Health Sciences, Hawler Medical University

## **Workshop 2**

# **Psychology of University Students**

**(Cihan Academia – Building 8)**

**May 1<sup>st</sup>, 2019**

**09:00-13:00**

**Psychology of University Students**

Dr. Hasanen A. H. Al-Taiar

MBCHB; MRCPsych

Oxford University, UK

