1st Scientific Conference of College of Health Sciences

6-7 September 2021

Conference Abstract Book

President's Remarks

It is our pleasure to welcome you to the 1st Scientific Conference of College of Health Sciences, hosted by Hawler Medical University, College of Health Sciences. We are ecstatic to witness this event, bringing together experts and professionals from both inside and beyond the Kurdistan Region and Iraq to discuss critical subjects concerning lifestyle and well-being.

We are pleased to see the start of such an academically thorough conference program, besides gathering many participants, presenters, and audiences from various fields. We would like to convey our gratitude to the speakers, presenters, and attendees for their contributions to the conference. We appreciate the notable efforts made by the conference's high, scientific, and organizing committees to make this conference happen.

We are optimistic that the 1st Scientific Conference of College of Health Sciences will accomplish its aims toward sharing the most up-to-date research discoveries in the topics of medical microbiology, clinical biochemistry, and Physiotherapy. This conference provides an opportunity to meet new educators and researchers for future collaborations, locally and globally. We are expectant that the conference's goal will be met to increase participation in finding answers to the health concerns that our regions face, aside from raising public awareness about health-related issues.

Prof. Dr. Nooraddin Ismail Allaqolli

President

Hawler Medical University

Dean's Remarks

The College of Health Sciences is the newest college among the five colleges of Hawler Medical University. Established in 2012, college of Health Sciences provides an ingenious opportunity for opening various departments in paramedical sciences to foster professional graduates. Currently, this college includes three departments: Medical Microbiology, Clinical Biochemistry, and Physiotherapy. Delightedly, there is an official authorization from the Ministry of Higher Education and Scientific Research for adding two additional departments to our college in the near future; Public Health and Nutrition and Diet departments.

For a long time, the health institutions of the Kurdistan Region encountered a deficiency of the paramedical professions, necessary for comprehensive care of clients and patients. Therefore, the College of Health Sciences can be an umbrella for many paramedical professions, to educate our graduates and the public about understanding physical, social, environmental, and psychological aspects of care.

The 1st Scientific Conference is the first attempt of this college to gather scholars in different medical and paramedical specialties from inside and outside of the country. It includes ten keynote speakers, three workshops, and twenty six research presentations. Due to critical time in Kurdistan related to the COVID-19 pandemic, the college administration decided to continue their scientific journey by holding the conference virtually. Therefore, through this letter, I would like to thank the international and national speakers, active and passive participants of the 1st Scientific Conference. I Hope we learn and enjoy this conference together!

Prof. Dr. Hamdia Mirkhan Ahmed
Dean of College of Health Sciences
Head of High Committee of the Conference
Hawler Medical University

Members of High Committee

Asst. Prof. Dr. Salah Tofiq Jalal

Asst. Prof. Dr. Sewgil Saaduldeen Anwer

Asst. Prof. Dr. Dler Qader Gallaly

Asst. Prof. Dr. Ahmed Akill Khuhair

Conference Scientific Committee

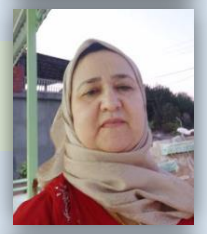
Prof. Dr. Kafia Mawlood Shareef

Asst. Prof. Dr. Katan Sabir Ali

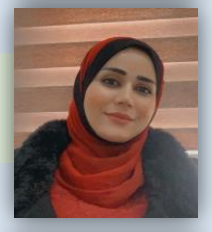
Asst. Prof. Dr. Fattma Abody Ali

Asst. Prof. Dr. Ahang Hasan Mawlood

Asst. Prof. Dr. Sahar Mohammad Zaki Abdullah



Asst. Prof. Dr. Rundk Ahmed Hwaiz



Dr. Ligia Eliya Matti Shemiss

Conference Organizing Committee

Asst. Prof. Dr. Layla Mohamed Al-Naqeshbandy

Dr. Samira Fattah Hamid

Dr. Hedy Ahmed Hassan

Mr. Lukman Qader Abdulrahman Jalal

Mr. Zanko Hasan Jawher

Sessions' Moderators

1st Session - Medical Microbiology

Asst. Prof. Dr. Salah Tofiq Jalal
Dr. Samira Fattah Hamid

2nd Session - Physiotherapy

Asst. Prof. Dr. Sewgil Saaduldeen Anwer
Asst. Prof. Dr. Sahar Mohammad Zaki Abdullah

3rd Session - Poster Presentation

Asst. Prof. Dr. Ahmed Akill Khuhair
Asst. Prof. Dr. Ahang Hasan Mawlood

4th Session - International Guest Speakers

Prof. Dr. Hamdia Mirkhan Ahmed
Mr. Zanko Hasan Jawher

5th Session – Biochemistry

Prof. Dr. Kafia Mawlood Shareef
Asst. Prof. Dr. Rundk Ahmad Hwaiz

6th Session - Physiotherapy

Asst. Prof. Dr. Fattma Abody Ali
Dr. Layla Mohamed Al-Naqeshbandy

7th Session - Medicine/Surgery

Asst. Prof. Dr. Katan Sabir Ali
Dr. Hedy Ahmed Hassan

8th Session -International Guest Speakers

Asst. Prof. Dr. Dler Qader Gallaly
Dr. Ligia Eliya Matti Shemiss

Virtual Conference Agenda

All sessions start following Iraq Time Zone

First Day - 6th September 2021

10:45-11:00 am	Registration
11:00-11:45 am	Opening ceremony
11:45-11:50 am	Break

1st Day, 1st Session, 11:50 am-1:30 pm - Medical Microbiology

Moderators: Asst. Prof. Dr. Salah Tofiq Jalal & Dr. Samira Fattah Hamid		
11:50-12:10	COVID-19 status in Kurdistan region ***(Keynote Speaker)***	**Dr Chiman Taha Yaseen** Former Director of Public Health Sciences COVID-19 response committee member, MOH, KRG
12:10-12:20	Evaluation of hepatic enzymes activities in COVID-19 patients ***(Research)*** *Rundk Hwaiz, Mohammed Merza, Badraldin Hamad, Shirin HamaSalih, Mustafa Mohammed, Harmand Hama*	**Asst. Prof. Dr. Rundk Ahmad Hwaiz** College of Health Sciences Hawler Medical University, KRG
12:20-12:30	Student's perception regarding prevention measures for COVID-19 pandemic in the college of nursing in Erbil/Kurdistan Region ***(Research)*** *Kareem F. Aziz Al-Barzinjy*	**Asst. Prof. Dr. Kareem F. Aziz Al-Barzinjy** College of Nursing Hawler Medical University, KRG
12:30-12:40	Antimicrobial Susceptibility Profile of multi Resistance Gram Positive Bacteria Isolated from Cancer Patient in Erbil Governorate\Iraq ***(Research)*** *Fattma A. Ali, Danya Bzhar Abdullah, Shayma Salim Sabir, Sardam Ismail Sadiq, Nawin Nasih mahmood*	**Mr. Jihad Abdulrazzaq Sleman** College of Science Cihan University, KRG
12:40-12:50	Does corona virus affect patient safety culture? A cross sectional study ***(Research)*** *Yosra Raziani, Ahmad Nazari, Sheno Raziani*	**Ms. Yosra Raziani** Department of Nursing Komar University of Science and Technology, Sulaymaniyah, KRG
12:50-1:00	Perception, Acceptance, and Hesitancy of the Public Regarding Covid-19 Vaccine and Immunization: A literature review ***(Research)*** *Ahmed Naif Ali, Hamdia Mirkhan Ahmed,*	**Mr. Ahmed Naif Ali** College of Nursing Hawler Medical University, KRG

	Karim Fatah Aziz	
1:00-1:10	Role of Innate Immune System during COVID-19 Infection ***(Research)*** *Sahar Muhammad Zaki, Zaynab Yaseen Ahmed*	**Ms. Zaynab Yaseen Ahmed** Faculty of Sciences Tishk International University, KRG
1:10-1:30	**Questions & Discussion**	
1:30- 2:00	**Break**	

1st Day, 2nd Session 1:00-4:00 pm – Physiotherapy- Workshop

Moderators: Asst. Prof. Dr. Sewgil Saaduldeen Anwer & Asst. Prof. Dr. Sahar Mohammad Zaki		
2:00- 3:30	Integrating Trauma-Informed Yoga Practices into Physiotherapy Interventions ***(Workshop)***	**Ms. Farah ALdweik** Center for Victim of Torture-Jordan **Ms. Wala'a Awad** Center for Victim of Torture - Jordan **Ms. Mei Lai Swan** Yoga for Human Kind – Australia
3:30-4:00	**Questions & Discussion**	
4:00-5:00	**Break**	

1st Day, 3rd Session, 5:00-6:10 pm - Poster Presentation

Moderators: Asst. Prof. Dr. Ahmed Akill Khuhair & Asst. Prof. Dr. Ahang Hasan Mawlood		
5:00-5:05	Association between vitamin D and Covid-19 ***(Research)*** *Ali Idris Jamal*	**Mr. Ali Idris Jamal** Hawler Medical University Medya Diagnsotic Center, KRG
5:05-5:10	Evaluation bacteriological and chemical assessment of water from different consumption sources in Erbil ***(Research)*** *Payman Akram Hamaseed, Payman Ali Kareem, Khalid Esmail Aziz*	**Asst. Prof. Dr. Payman Ali Kareem** College Of Agricultural Engineering Sciences, Salahaddin University-Erbil , KRG
5:10-5:15	Biodiesel production from Iraqi strain of Microalgae-*Spirulina subsalsa* ***(Research)*** *Sewgil Saaduldeen Anwer, Parween M Abdulkareem*	**Asst. Prof. Dr. Sewgil Saaduldeen Anwar** College of Health Sciences Hawler Medical University, KRG

5:15-5:20	Cytokine storm syndrome in coronavirus infectious disease-2019 infection (COVID-19) ***(Research)*** *Bakhtawar Ziad Omer, Sahar M Zaki Abdullah*	**Ms. Bakhtawar Ziad Omer** Medya Diagnostic Center, KRG
5:20-5:25	Determination of oxidative stress levels and some antioxidant enzyme activities in rheumatoid arthritis ***(Research)*** *Darya Assi Younus*	**Mr. Darya Assi Younus** Ministry of Health, KRG
5:25-5:30	Effect of probiotic on cholesterol level ***(Research)*** *Payman A. Hamasaeed, Sawza M.Ayub*	**Prof. Dr. Payman Akram Hamasaeed** College of Education, Salahaddin University-Erbil, KRG
5:30-5:35	*Helicobacter pylori* infection in pregnant women and it's correlation with the alterations of some trace elements levels in the serum at maternity teaching hospital in Erbil City ***(Research)*** *Suha H. Ahmed, Saad A. Mohammed*	**Ms. Suha Hussein Ahmed** College of Nursing Hawler Medical University, KRG
5:35-5:40	The Role of *Escherichia coli* and *Klebsiella pneumoniae* in urinary tract infections in Erbil City ***(Research)*** *Ahang H. Mawlood, Tybah Firas Khalil, Amna Jamal Muhammad, Aya Hussein Ali, Najlaa Abduallah, Hiba Jihad Hussein*	**Ms. Tybah Firas Khalil** College of Health Sciences Hawler Medical University, KRG
5:40-5:45	Relationship between vulvovaginitis in women with the candida species ***(Research)*** *Sahar Mohammed Zaki Abdullah*	**Asst. Prof. Dr. Sahar Mohammed Zaki** College of Health Sciences Hawler Medical University, KRG
5:45-5:50	Investigation of intestinal protozoic infections among food-handlers in Erbil City, Iraq ***(Research)*** *Rawezh salah ismael, Lana barzan sadiq, Asma samir mamand , Hana fatah muhammed, Ahmed Akil*	**Ms. Rawezh Salah Ismail** College of Health Sciences Hawler Medical University, KRG
5:50-6:10	**Questions & Discussion**	
6:10-9:00	**Break**	

1st, 4th Session 9:00-11:00 pm -International Guest Speakers

Moderators: Prof. Dr. Hamdia Mirkhan Ahmed & Mr. Zanko Hasan Jawher		
9:00-10:30	The Value of a Multidisciplinary Team Approach to Rehabilitation ***(Workshop)***	**Dr. Hiro Khoshnaw** Department of Ageing and Health, Royal Surrey NHS Foundation Trust, Guildford, UK **Mr. Jay-Mark Jocson** Charge Nurse, Older People's Unit (OPU), RSFT**,** UK **Ms. Theresia Stuckey** Senior Occupational Therapist (OT), OPU, RSFT, UK **Ms. Olivia Epps** Speech and Language Therapist (SALT), OPU, RSFT, UK
10:30-11:00	**Questions & Discussion**	
11:00	**End of 1st Day**	

Second Day - 7th September 2021

2nd Day, 5th Session 11:00 am -1:00 pm – Biochemistry

Moderators: Prof. Dr. Kafia Mawlood Shareef & Asst. Prof. Dr. Rundk Ahmad Hwaiz		
11:00-11:20	Strong association between diets rich in processed foods/PAMPs and Atherosclerosis ***(Keynote Speaker)***	**Dr. Tola Abdulsattar Faraj** College of Medicine Hawler Medical University & Tishk International University, KRG
11:20-11:40	Overweight and Obesity; causes, prevention, and treatment **(Keynote Speaker)**	**Asst. Prof. Dr. Rebaz Tahir Lak** Kurdistan Board of Medical Specialties, KRG
11:40-12:00	Clean technology for waste water treatment **(Keynote Speaker)**	**Prof. Dr. Kafia M. Shareef Surchi** College of Health Sciences Hawler Medical University, KRG
12:00-12:10	The Effect of Ketogenic Diet on Kidney Chemistry ***(Research)*** *Rundk A. Hwaiz, Razhan R. Muhammed, Dilan S. Majeed, Jihan W. Jaleel, Mahdi H. Qadir*	**Asst. Prof.Dr. Rundk Ahmad Hwaiz** College of Health Sciences Hawler Medical University, KRG
12:10-12:20	Removal of Heavy Metals using immobilized microalgae *Scenedesmus ecornis* isolated from Chinarok-Koya ***(Research)*** *Sewgil Saaduldeen Anwer, Parween M Abdulkareem*	**Asst. Prof. Dr. Sewgil Saaduldeen Anwer** College of Health Sciences Hawler Medical University, KRG
12:20-12:30	Synthesis and Significance of Gold Nanoparticles ***(Research)*** *Sara Bahram Miran, Fattma Abeer Abody*	**Ms. Sara Bahram Miran** Faculty of Dentistry Tishk International University, KRG
12:30-12:50	**Questions & Discussion**	
12:50-1:00	**Break**	

2nd Day, 6th Session, 1:00-4:00 pm - Physiotherapy

Moderators: Asst. Prof. Dr. Fattma Abody Ali & Dr. Layla Mohamed Al-Naqeshbandy		
1:00-1:20	Early referral of inflammatory back pain aid early diagnosis of a hidden ankylosing spondylitis ***(Keynote Speaker)***	**Dr. Avin M. Arif Maroof** Rizgary Teaching Hospital, KRG
1:20-1:30	An innovative physiotherapy and psychotherapy approach for the treatment of survivors of torture in a prison in the Kurdistan Region of Iraq ***(Research)*** *April Gamble, Ahmed M. Amin, Fariq Kareem, Mohammad A. Rahem, Salah H. Rahim, Jeff Hartman*	**Dr. Ahmed M. Amin** Wchan Organization for Victims of Human Rights Violations
1:30-1:50	Role of physiotherapy in treating adolescent idiopathic scoliosis-case report ***(Keynote Speaker)***	**Dr. Avin M. Arif Maroof** Rizgary Teaching Hospital, KRG
1:50-2:50	Applying modern pain science in physiotherapy ***(Workshop)***	**Dr. April Gamble** Wchan Organization for Victims of Human Rights Violations; ACR The American Center For Rehabilitation; DIGNITY The Danish Institute Against Torture; CVT Center for Victims of Torture Sulaymaniyah, Kurdistan USA, KRG resident **Mr. Fariq Kareem** Wchan Organization for Victims of Human Rights Violations
2:50-3:10	**Questions & Discussion**	
3:10-4:00	**Break**	

2nd Day, 7th Session, 4:00-5:40 pm - Medicine/Surgery

Moderators: Asst. Prof. Dr. Katan Sabir Ali & Dr. Hedy Ahmed Hassan		
4:00-4:20	Oncoplastic breast surgery versus classical mastectomy for patients with breast cancer ***(Keynote Speaker)***	**Asst. Prof. Dr. Jalal Hamasalih Fattah** College of Medicine, Hawler Medical University, KRG
4:20-4:30	Impact of Probiotics on Prevention and Control of Colon Cancer ***(Research)*** *Lana Dawod Nasih, Fattima A.Aboodi*	**Ms. Lana Dawod Nasih** College of Health Sciences Hawler Medical University, KRG
4:30-4:40	Effectiveness of PRP In Soft Tissue Healing Acceleration After Tooth Extraction In Diabetic Patients type 2 ***(Research)*** *Suha Talal Abd,Abbas F. Abd-Alwahab, Ban S. Diab*	**Dr. Suha Talal Abd** College of Dentistry University of Baghdad Iraq
4:40-4:50	Does the psychosocial Factors Affect the Coping Strategies in Multiple sclerosis? ***(Research)*** *Yosra Raziani*	**Ms. Yosra Raziani** Department of Nursing Komar University of Science and Technology, Sulaymaniyah, KRG
4:50-5:00	Helicobacter pylori-induced gastritis and its association with gastric adenocarcinoma in a group of patients in Erbil City ***(Research)*** *Salah Tofik Jalal Balaky , Tavga Hushiar Salim, Rafal Al-Rawi, Saman Salah eldeen Abdulla, Ahang Hasan Mawlood, Nazar M.T. Jawhar*	**Dr. Tavga Hushiar Salim** College of Health Sciences Hawler Medical University, KRG
5:00-5:10	Screening of gene encoding biofilm production of Staphylococcus aureus isolated from Erbil city patients ***(Research)*** *Sirwan Ahmed Rashid, Sawsan Muhammed Sorchee*	**Mr. Sirwan Ahmed Rashid** College of Sciences Cihan University, Erbil, KRG
5:10-5:20	Effect of Garlic on Serum Lp-PLA2, Blood Pressure and Blood Glucose Levels ***(Research)*** *Roza Tallat Yaseen, Mohammed Yousif Merza, Badraddin Hamad, and Rundk Ahmed Hwaiz*	**Dr. Mohammed Yousif Merza** College of Pharmacy Hawler Medical University, KRG
5:20-5:40	**Questions & Discussion**	
5:40-9:00	**Break**	

2nd Day, 8th Session 9:00-10:50 pm-International Guest Speakers

Moderators: Asst. Prof. Dr. Dler Qader Gallaly & Dr. Ligia Eliya Matti Shemiss		
9:00-9:20	COVID-19 and obesity: Implications for obesity prevention and global health interventions ***(Keynote Speaker)*** *Kevin Curtin, Penelope Mitchell, Hamdia Ahmad, Taban Rasheed*	**Prof. Dr. Lisa R. Pawloski** College of Arts and Sciences The University of Alabama, Tuscaloosa, Alabama, USA
9:20-9:40	The Future Depends on What You Do Today." Achieving the Best Rehabilitation Outcomes ***(Keynote Speaker)***	**Prof. Liz Holey** Independent International Consultant Leeds, UK
9:40-10:00	MiR-340-5p suppresses proliferation, migration and invasion of colon cancer cells by targeting FHL2-E-cadherin axis ***(Keynote Speaker)***	**Dr. Milladur Rahman** Department of Clinical Sciences, Malmö, Section for Surgery, Lund University, Malmö, Sweden
10:00-10:10	Sensitization of cancer cells to endogenous radiotherapy ***(Research)*** *Tara Miran, Andreas T J Vogg , Natascha Drude , Felix M Mottaghy, Agnieszka Morgenroth*	**Dr. Tara Dara Miran** Mutterhäuser Hospital Trier, Germany
10:10-10:30	**Questions & Discussion**	
10:30-10:50	**Closing Ceremony**	

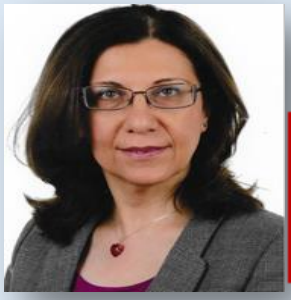
Biography of International Speakers

Prof. Dr. Lisa R. Pawloski
College of Arts and Sciences, University of Alabama, Tuscaloosa, Alabama, U.S.A.

Lisa Pawloski, Ph.D., is a Professor of Anthropology and Associate Dean for International Programs in the College of Arts and Sciences (A&S) at the University of Alabama. Dr. Pawloski oversees A&S's study abroad programs and facilitates major international initiatives in Cuba, Greece, Ghana, and Southeast Asia. As an anthropologist, Dr. Pawloski has conducted multiple research projects related to the nutrition transition in international settings including Mali, Kurdistan, Thailand, Chile, Cuba, and Nicaragua. She has received funding from Fulbright, USDA, HRSA, and U.S. Department of State which have resulted in over 50 peer reviewed publications. Dr. Pawloski has also facilitated international programs at her previous institution, George Mason University (GMU) overseeing international internships as Chair of the Departments of Nutrition/Food Studies and Global/Community Health, and Dean of Academic Affairs on the GMU South Korea campus. Dr. Pawloski was also awarded the first Fulbright Iraq program, bringing Iraqi scholars to the U.S.

Prof. Liz Holey
Independent International Consultant
Teesside University, UK

Professor Liz Holey is a Physiotherapist with extensive clinical and academic experience in the UK. She has been Pro Vice-Chancellor (Quality and Governance), responsible for strategic leadership across Teesside University, UK.
She currently works as an International freelance consultant and has undertaken projects in countries which include Malaysia, Zambia, Libya, Geneva, Cambodia, Vietnam, Iraq, Ethiopia and the UK. Projects have focused on evaluations, analyses, professional standards and competencies, commissioning models, curriculum and capacity building. She has been consultant to the review of Educational Guidelines, WP HQ and was part of the Delphi study to develop WHO's Rehabilitation Competency framework.
Liz is a reviewer for the WP accreditation of physical therapy entry level programs and has acted as reviewer of academic papers for international journals, research proposals and conference abstracts. She has achieved numerous published academic papers and conference presentations.



Dr. Hiro Khoshnaw
Consultant Physician and Geriatrician, Department of Ageing and Health, Royal Surrey NHS Foundation Trust (RSFT), Guildford, UK

Dr Khoshnaw is a Consultant Physician and Geriatrician at the Department of Ageing and Health, at Royal Surrey Hospital NHS Foundation Trust (RSFT) in the United Kingdom (UK).
She trained as an undergraduate at Tehran University of Medical Sciences in Iran. After completing her internship in Tehran, she came to the UK and started her postgraduate training. She completed her Higher Specialty Training in General (internal) and Geriatric Medicine and was appointed as a Consultant in April 2001. She has special interest in Falls and Bone Health and is the clinical lead for Falls at RSFT. She is also the Physician Associates (PA) Lead in her hospital.
Dr Khoshnaw also has a special interest in Medical Education. She obtained a Masters (MA) in Clinical Education with the University of Brighton in 2011. She has held a number of educational roles including Training Programme Director (TPD) for Core Medical Training at Kent, Surrey and Sussex Deanery. Dr Khoshnaw is also an examiner for The MRCP (UK) Part 2 Clinical Examination (Practical Assessment of Clinical Examination Skills - PACES). She is also a member of the Academy of Medical Educators (AoME).

Dr. Milladur Rahman
Department of Clinical Sciences, Malmö, Section for Surgery, Lund University, Malmö, Sweden

Dr. Milladur Rahman is an Academic Scientist at Department of Clinical Science, Malmö, Faculty of Medicine, Lund University. Dr. Rahman received his PhD and Postdoctoral training in Clinical Medicine from Faculty of medicine, Lund University in 2012 and 2014, respectively. In 2016, he completed his second postdoctoral fellowship at Laboratory of Vascular Biology and Immunology, Department of Pathology, Stanford University, USA. In the beginning of 2017, he returned back to Sweden and joined at Lund University as a researcher. His research focuses on experimental and computational approaches to understand the molecular mechanisms of disease process in sepsis, pancreatitis, and colorectal cancer. DR. Rahman published over 45 peer-reviewed articles in some renown journals, such as, in Annals of Surgery (IF:12.96), Nature Communications (IF:14.91), Gastroenterology (IF:22.68), etc. Dr. Rahman is also dedicated in mentoring PhD students in Faculty of Medicine, Lund University.

Dr. April Gamble
Wchan Organization for Victims of Human Rights Violations
The American Center for Rehabilitation, USA

Dr. April Gamble PT, DPT, CLT is a licensed physiotherapist with a Doctor of Physical Therapy from USA. Dr. April has been working full time in the Kurdistan Region of Iraq since 2017. She is the founder of ACR - The American Center for Rehabilitation and the Physiotherapy Director at Wchan Organization for Human Rights Violations in Sulaymaniyah. With Wchan, she leads the development of interdisciplinary treatment services for survivors of torture. She is also a Physiotherapist Trainer for other projects in Iraq with the Center for Victims of Torture – Iraq and DIGNITY – the Danish Institute Against Torture. April's publication credits include international textbooks and peer-reviewed international journals. April is the secretary for the Global Health Group of the American Physical Therapy Association (APTA) and the chair of the Global Outreach Committee of the Oncology Rehab Group. She delivers presentations at national and international meetings including the World Physio Congress.

Dr. Tara Dara Miran
Department of Nuclear Medicine, University Hospital, Aachen, Germany

Nuclear medicine physician and clinical scientist working at Klinikum Mutterhaus der Borromäerinnen, academic teaching hospital of the Johannes Gutenberg-University in Mainz. Strong background and interest in nuclear medicine, scientific research, cancer imaging and medical industry. Graduated from college of medicine at Hawler medical University in 2008. Skilled clinician and scientist with a master degree in non-invasive prenatal testing (NIPT) of fetal aneuplody (Down syndrome) from University of Plymouth, United Kingdom in 2012. Worked as assistant lecturer at the college of health sciences, Hawler Medical University. Gained a PhD with „magna cum laude" in nuclear medicine in RWTH-Aachen, Germany on Sensitization of cancer cells to Endogenous Radiotherapy.

Ms. Farah Mazin ALdweik
Center for Victim of Torture, Jordan

Farah AL-dweik, physiotherapist, specialized in trauma inform physiotherapy, I believed that biopsychosocial approach is important approach to helps client return to the functionality, and good life quality. During my 11 years of experience in physiotherapy I gain extensive experience in treating clients using different approaches, and techniques. I provide resilience, self-care, and physiotherapy sessions for people who experience war trauma, and torture. I have experience in supervision, training, and TOT for health providers in specialized, and non-specialized trauma informed services for international NGOs.

I am alumni for leadership program that had been provided by Harvard Humanitarian Institute, and I served as a trainer for the same institute, I served as trainer for the importance of trauma informed approaches for leadership within humanitarian sectors.

I have several advocacy activities against torture, and published a series of stories that highlighted the importance of biopsychosocial intervention in healing from trauma.

Ms. Wala’a Awad
Center for Victim of Torture, Jordan

I’m a Certified Physiotherapist, received my Bachelor's degree of Physical Therapy from The Hashemite University in Jordan in 2014.

I have many years of experience in the field of trauma informed physiotherapy; working with an international organization as part of an interdisciplinary team to oversee physiotherapy interventions, including individual and group services with adults and children who are survivors of torture and war trauma, providing supervision, coaching and training to a team of physiotherapists, and provides education and support to help other organizations better meet the needs of torture and war trauma survivors.

I have also many years of experience in providing physiotherapy interventions to help the clients recover from the effects of torture and trauma, and enabled them to build their lives and communities following torture and trauma.

Ms. Mei Lai Swan
Director of Yoga for Human Kind, Australia

Born on the unceded Indigenous lands of Australia, Mei Lai Swan is the Founder and Director of social enterprise yoga school Yoga for Humankind, offering specialised trainings in Trauma-Informed Yoga and Embodied Social Change. Mei Lai has been dedicated to the paths of yoga, meditation and embodied practice for over 20 years. As a senior yoga trainer and certified trauma-informed facilitator (TCTSY-F), she now combines embodied healing practices with her professional background in social work, community development and non-profit management. With an undergraduate degree in International Community Development and a Master of Social Work, Mei Lai works with Indigenous, refugee and diverse cultural communities in Australia and around the world. Mei Lai is passionate about building community and making the richness and depth of the yoga teachings and practices accessible, relevant and empowering for everybody, heart and mind.

Biography of National Speakers

Dr. Chiman Taha Yaseen
Former Director of Public Health Department
Member of COVID-19 Response Committee
Ministry of Health, Kurdistan Regional Government
Erbil, Kurdistan Region- Iraq

Chiman Akrayi is a medical doctor holding the position of National Public Health Officer at WHO Erbil and at the same time she is in-charge of WHO Liaison Office inside MOH KRI. She has more than 20 years of experience in Public Health management and health administration.
Prior to her current position, she was the Director of Public Health and Food Safety at MOH KRI and still a member of the MOH KRI COVID-19 Response Committee. She joined DOH Erbil in 2014 as Head of the Biostatistics Section and she was also the DOH Erbil Focal Point for Syrian Refugees' Health Affairs.
Chiman was a UNICEF staff member from 1997-2011 and had worked in the various areas of Public Health and Nutrition Programme management particularly in the Health Information System Management, Infant and Young Child Feeding Programme, etc.
She earned a master's of Community Medicine degree from Hawler Medical University, Erbil, Iraq in 2011 and a MB.ChB in Medicine and Surgery from Salahaddin University Medical School, Erbil, Iraq in 1994. She is also an Obstetrics and Gynecology Practitioner.

Prof. Dr. Kafia Mawlood Shareef Surchi
Department of Clinical Biochemistry, College of Health Sciences,
Hawler Medical University, Erbil, Kurdistan Region- Iraq

Prof. Kafia M. Surchi has 29 years' experience in Physical Chemistry in the field of environmental chemistry and has published extensively more than 70 papers in various National and international Scientific Journals and conferences world-wide. She had many academic posts in Salahaddin University, Hawler Medical University and Tishk International University. She has also acted as external examiner for MSc and PhD Viva and supervised 12 Msc and 4 PhD students. She is a member of many International and National Associations and reviewer in many International and National Journals.

Asst. Prof. Dr. Jalal Hamasalih Fattah
College of Medicine, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Assistant professor in Plastic surgery and head of plastic surgery unit at the college of medicine/HMU in Erbil-KRG-Iraq. Graduated from college of medicine Salahaddin University in 1994 in Erbil. Got High Diploma in General surgery in 2002. Got Iraqi Board in plastic and reconstructive surgery in 2008. Got European Board in Plastic, reconstructive, and aesthetic surgery in 2010 in Switzerland. Works as a plastic surgeon at Rizgary teaching hospital and CMC Private Hospital in Erbil. Member of ISRAS, ASPS, ISAPS, and KSPS. Director of Erbil center of KBMS of plastic surgery. He has twelve published articles in the field of plastic surgery. Regular speaker at national and international conferences.

Dr. Tola A. Faraj
Department of Medical Analysis, Faculty of Sciences, Tishk International University
College of Medicine, Hawler Medical University
Erbil, Kurdistan Region- Iraq

Tola completed Ph.D. at the Cardiovascular Sciences Department/Leicester University in the United Kingdom; a master's degree at Medical Immunology (College of Medicine/HMU); a bachelor's degree at General Biology (Salahaddin University). Tola's current position is a Head of Medical Analysis Dep. at Tishk International University, besides his managerial duties, he is carrying on as a lecturer and researcher in the biomedical science field. Tola has awarded a PhD grant from HCED, and FVSP scholarship by the U.S. embassy and has published articles in high-impact international journals and his focus is on Cardiometabolic syndrome, Immuno-inflammatory disorders, PAMPs, Nutrition, and Atherosclerosis. Moreover, photography is Tola's passion, he is a winner in 3rd place for the PhDepiction competition at the University of Leicester, through mixing biomedical sciences with photography skill as part of health awareness program.

Asst. Prof. Dr. Rebaz Tahir Lak
Kurdistan Board of Medical Specialties, Erbil, Kurdistan Region- Iraq

Assistant Professor and Researcher in Community Medicine, the head of Clinical Research Center at Kurdistan Board of Medical Specialties. I graduated from College of Medicine/ HMU in 2005, then acquired FIBMS-CM (clinical Ph.D) in 2012, with a number of papers published in different medical specialties. Recently I got Professional Diploma in nutrition and obesity management.
Currently, I am working as a clinician at Paky Private Hospital, dealing with mal-nutrition cases on daily basis treating mainly obese patients using classic and new approaches and modalities.

Dr. Avin M. Arif Maroof
Rizgary Teaching Hospital
College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Dr. Avin is a senior specialist in Rheumatology and Medical Rehabilitation, works in the Department of Rheumatology and medical rehabilitation at Rizgary teaching hospital in Arbil, Kurdistan Region of Iraq, she is also Academic Lecturer of Rheumatology at School of Medicine / Kurdistan University Hawler KUH, and College of Health Sciences / Hawler Medical University HMU.
Dr. Avin graduated from Salahaddin University, College of medicine in 1999, get High diploma degree from Hawler Medical University in 2011.
She was head of Rheumatology Department in Rizgary teaching hospital from 2014-2016. Currently she is vice president of Association of Rheumatology and Medical rehabilitation in KRG.
Dr. Avin is an ACR International Fellow and member in EULAR school of Rheumatology. She has several studies in Rheumatology field and was speaker in multiple medical events inside and outside the country.

Biography of Research Presenters

Asst. Prof. Dr. Sewgil Saaduldeen Anwer
Department Head, Department of Clinical Biochemistry, College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Dr. Sewgil Saddouldeen Anwer is assistant prof. and head of Clinical Biochemistry department. College of Health Sciences. Dr. Sewgil has received her B.Sc. Degree in Biology from the University of Salahaddin in 1995-1996, M.Sc. Degree in microbial biotechnology from Ankara University In 2000, and PhD. Degree in the same branch in Ankara University in 2005. Worked as a lab- assistant at Sallahaldin University-College of Dentistry and ten years as lecturer in Biology department at the University of Koya.

Asst. Prof. Dr. Rundk Ahmed Hwaiz
Department of Clinical Biochemistry, College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Lecture, Doctor Rundk Hwaiz, a faculty member of college of Health Science, Clinical Biochemistry department. I graduated from Lund University, College of Medicine, Unit of Surgery/Sweden in 2015 for a PhD degree. I have done two years post doctorate in Malmo University and Lund University (2017-2019). I have several published research in high impact factor and reputed journals. My area of research in Biochemistry, Microbiology and cancer. Have collaboration with Lund University in Sweden.

Asst. Prof. Dr. Tavga Hushiar Salim
Department of Clinical Biochemistry, College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

In 2006 graduated from College of Medicine, In 2013 PhD degree in Medical Science, Pathological department in Lund University-Sweden, she return back to Kurdistan, Iraq, teaching in Collage of Health Science, Hawler Medical University, Department of Medical Microbiology. In 2019 specialty in histopathology (F.K.B.M.S. path).in total she had five publications and her current three more research work is mainly related to pathogenesis and immunohsitochemical studies of thyroid lesions and helicobacter pylori related gastritis.

Dr. Ahmed Mohammed Amin, MBChB, MA, PhD
Founder and the Director of Wchan Organization for Victims of Human Rights Violations, Kurdistan Region- Iraq

Ahmed is a licensed Medical Doctor with the registration with Iraqi Medical Association and Kurdistan Medical Association. He holds Bachelor degree in Medicine and Surgery (MBChB) from College of Medicine – University of Salahaddin; Erbil / Iraq, Master degree in Health Management, Planning and Policy from Nuffield Centre for International Health and Development School of Medicine – University of Leeds, UK and PhD degree in Community Medicine from College of Medicine - Hawler Medical University.
Ahmed is one of the Founders and the Director of Wchan Organization for Victims of Human Rights Violations, a national Kurdish human rights NGO that operates in Iraq but mainly in Kurdistan region. He has been working in the field of health and human rights for more than 20 years.

Asst. Prof. Dr. Kareem Fattah Aziz AL-Barzinjy
College of Nursing, Hawler Medical University, Erbil, Kurdistan Region- Iraq

He has received his MSc degree from Mosul University/College of nursing in 2002 and PhD degree in Community Health Nursing from Hawler Medical University /College of Nursing in 2009. He has worked in different administrative posts in Medical Technical Institute and in Ministry of Health in Kurdistan Region, in addition he has different scientific participation in conferences, and workshops. He is member in Mangy-Spy organization for health education and disease prevention, he has many scientific activities to confront COVID-19, such as seminars and interviews on the radio and television in Kurdistan Region to raise health education for population for prevention and apply precautionary prevention. He has 35 published articles in national and international academic journals and in impact factor journals. He has 22 years of experience in teaching in higher education. Now he is one of the teaching staff in Hawler Medical University/College of Nursing and responsible for community health nursing (theory and clinical).

Dr. Mohammed Yuosif Merza
Department of Clinical analysis, College of Pharmacy, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Dr. Mohammed Merza Bsc, MSc in Medical Science University of Glasgow- United Kingdom. PhD in Medical Physiology, Lund University. Sweden.
Lecturer in College of Pharmacy and College of Health Science, Clinical Biochemistry Department. Lecturer in Faculty of Science and Faculty of Education, Tishk International University. Lecturer in Pharmacy Department, Gasha Private inistitute and Aynda Private institute. Publications: 17

Dr. Suha Talal Abd
Collage of Dentistry, University of Baghdad, Baghdad- Iraq

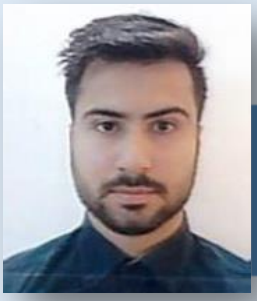
A teacher at Department of Basic science, College of Dentistry, University of Baghdad. Iraq.
Bachelor of Oral and Dental Surgery from College of Dentistry, University of Baghdad 2006.
Master of Oral Physiology from College of Dentistry, University of Baghdad 2014.
Doctorate of Physiology from Medicine College, Al- Nahrain University 2020.

Ms. Yosra Raziani
Department of Nursing, Komar University of Science and Technology, Sulaymaniyah, Kurdistan Region-Iraq

Experienced Lecturer with a demonstrated history of working in the higher education industry. Skilled in Philanthropy, Nutrition, Research, Nursing, and Public Speaking. Strong education professional with a Master's degree focused in Pediatric Nurse/Nursing from Lorestan University of Medical Sciences in Iran. She has published several scientific papers in national and international journals and currently published a book about cancer outcomes.

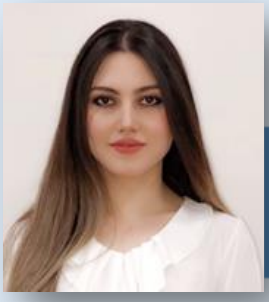
Mr. Ahmed Naif Ali
College of Nursing, Hawler Medical University, Erbil, Kurdistan Region- Iraq

My name is Ahmed Naif Ali, graduated from Medical Technical Institute with the honor of a first top student, also graduated 2014-2015, from Hawler Medical University/ College of Nursing, again honored as a first top student on the Hawler Medical university level and College of Nursing, currently I am a student of psychiatry and mental health nursing specialty. I am more interested in psychosocial phenomena and aspects of society and the nursing profession. My hobbies are sport as meditation, self-awareness, and communication skills. I am working as a marketing supervisor and researcher in pharmaceutical companies as a trainer, mentor, and area manager.



Mr. Sirwan Ahmed Rashid
Department of Biomedical Sciences, College of Sciences, Cihan University, Erbil, Kurdistan Region- Iraq

My Name is Sirwan Ahmed Rashid I am from Iraq- Kurdistan region and I have Master degree in Microbiology from Salahaddin University in 2020, I had my Pedagogy certificate after six-month course from Erbil polytechnic University in 2021, on July 2021 I got my scientific title as assistant lecturer from Ministry of higher education of Kurdistan region. Now I am working at Cihan University in Biomedical sciences department as assistant lecture. My previous work experiment was within business sector in which I was Sales manager and team leader in many companies in Erbil city.



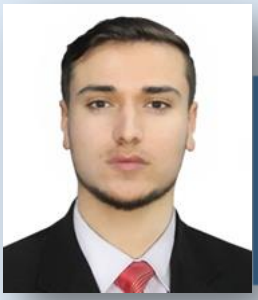
Ms. Sara Bahram Miran
Tishk International University, Erbil, Kurdistan Region- Iraq

I graduated from Hawler Medical University in 2017 with a Bachelor Degree. Following graduation, I started working as a Teaching Assistant at Tishk International University. In the Postgraduate Unit/ Faculty of Dentistry, I demonstrated my efficiency at work and was given several administrative tasks during my time there and it's been three years that I work as a Master Coordinator for the Faculty of Dentistry.

I also took part in a variety of events at the university, including organizing international conferences, graduation ceremonies, thesis defenses, COVID-19 seminars for staff and students, and How to Study Better seminars for students, among others. I am currently a second-year Master student at Hawler Medical University.

Mrs. Lana Dawod Nasih
Department of Medical Microbiology, College of Health Sciences,
Hawler Medical University, Erbil, Kurdistan Region- Iraq

I Graduated from Hawler Medical Microbiology/ College of Health Sciences/ Medical Microbiology Department. And now I'm a Master student in the field of Medical Microbiology, I have passed to second year of the master program. I used to work in Cihan University as a lab assistant for 2 years in Nutrition Department and also I have worked as a main member of quality assurance coordinators for the nutrition department in Cihan University. I also participated in Bologna Process Training as well as Biology Conference which was held by Cihan and Hawler Medical University as a coordinator. And I have also worked in College of Health Sciences/Medical Microbiology Department as a lab assistant for a year.



Mr. Jihad Abdulrazzaq Sleman
College of Science, Cihan University
American Care Company for Supplements
Erbil, Kurdistan Region- Iraq

My name is Jihad Abdulrazzaq Sleman. I graduated from Hawler Medical University/College of Health Science/Medical Microbiology Department. I am currently assistant laboratory at Cihan University/ College of science/ Department of medical biology and also a medical representative at American Care Company for supplements. My dream is to be a researcher in biology and especially microbiology and histopathology, I want to find new microbes that have industrial benefits and also association between microbes and there related disease and I want to share my knowledge with the future generation and to be lecturer in university.

Ms. Zaynab Yaseen Ahmed
Research Assistant, Faculty of Sciences, Tishk International
University, Erbil, Kurdistan Region- Iraq

She Graduated from Hawler Medical University/ College of Health Sciences/ Department of Medical Microbiology (2017-2018).
Research Assistant at Tishk International University/ Faculty of Nursing (2018-2021).
MSc Student at Hawler Medical University/College of Health Sciences/ Department of Medical Microbiology.

Biography of National Workshop Presenter

Mr. Fariq Karim Saeed
Wchan Organization for Victims of Human Rights Violations
Sulaymaniyah, Kurdistan Region- Iraq

Fariq Karim Saeed is a physiotherapist in Sulaymaniyah, Kurdistan, Iraq. He received his physiotherapy degree in 2001 from Technical institute of Sulaimany. He also earned a bachelor's degree in English Language and Literature in 2008 from University of Sulaimany. Fariq has worked as a physiotherapist for Sulaymaniyah DOH for over 15 years including working with children with disabilities and adults with orthopedic and rheumatoid conditions. Since 2017, Fariq has worked as a physiotherapist for Wchan Organization for Victims of Human Rights Violations. In this position, he provides physiotherapy treatment in the Male Reformatory for survivors of torture and psychological trauma. He has developed an expertise in delivering biopsychosocial, interdisciplinary, and trauma-focused physiotherapy treatment for persons affected by persistent pain. For Wchan Organization, Fariq also serves as a physiotherapy coordinator and supervisor which involves providing clinical supervision and training to the physiotherapy team. Fariq is a contributor to an internationally published pilot randomized controlled study titled: "The effects of a combined psychotherapy and physiotherapy group treatment program for survivors of torture incarcerated in an adult prison in Kurdistan, Iraq: A pilot study." Fariq is also a community trainer of Modern Pain Science through a project with the International Association for the Study of Pain (IASP). Fariq also participated in an intensive yearlong capacity building program with DIGNITY – The Danish Institute against Torture. Through this program he successfully became a trainer for DIGNITY's Physiotherapy Pain School Treatment and he will lead future trainings of physiotherapists in Kurdistan and the Middle East Region.

Biography of Poster Presenters

Prof. Dr. Payman Akram Hamasaeed
Department of Biology, College of Education, Salahaddin University- Erbil, Erbil, Kurdistan Region- Iraq

She has BSc in Biology department, Science College 1993. MSc in Biology department, Science College at Salahaddin University –Erbil 1995 and she has Ph.D. in Biology department, Science College at Mosul University 2014. Her general specialization in Microbiology and Specific specialization in Medical microbiology, work as professor at Biology department, Education College, Salahaddin University –Erbil – Kurdistan Region for more than 25 years .Her research interests in medical bacteriology and hospital infection prevention and control of multi-resistant nosocomial pathogens. She supervised postgraduate student and published 30 papers in different scientific journals and conference.

Asst. Prof. Dr. Sahar Mohammad Zaki
Department of Medical Microbiology, College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Dr. Sahar graduated from college of medicine and employed in ministry of health and she is general physician in Obstetrics and gynecology and she get her master degree in medical microbiology and immunology from Hawler Medical University and was head of research department in Kurdistan board for medical specialist now she is member of academic staff in college of health sciences/medical microbiology department since 2014 and head of quality assurance unit and also she is member in the women research and education center in Hawler Medical University had more than 20 researchers most of them concern with infertility and women health

Asst. Prof. Dr. Payman Ali Kareem
Department of Food Technology, College of Agricultural Engineering Sciences, Salahaddin University– Erbil, Erbil, Kurdistan Region- Iraq

I received the B.Sc in biology from Mosul University, M.Sc degree in microbiology from Tikrit University and Ph.D. degree in microbiology from Mosul University, Mosul, Iraq. I have been working in the university for about 20 years in my field of specialization and I study the following subjects: principle of microbiology, general microbiology, dairy microbiology, and food safety and poisoning.

Mr. Darya Assi Younus
Department of Medical Laboratory, Erbil Polytechnic University, Erbil, Kurdistan Region- Iraq

I'm a Lecturer in the Department of medical laboratory at Erbil poly technical University/koya technical institute. Since 2019 I have been teaching subjects of biochemistry and general chemistry; also in Chemical Laboratory. I received a master's degree in biochemistry from Van Yüzüncü Yıl Üniversity. From 2010 to 2021 I served as Chemical Lab analyst and as a technician on medical instruments in general hospital Taq Taq.

Mr. Ali Idris Jamal
MSc Student in College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

I Graduated from Hawler Medical University/ College of Health Sciences with a bachelor degree in Medical Microbiology (2017-2016). Currently I am a second year MSc student in Medical Microbiology and work as healthcare internship in Medya Diagnostic Center.

Ms. Suha Hussein Ahmed
College of Nursing, Hawler Medical University, Erbil, Kurdistan Region- Iraq

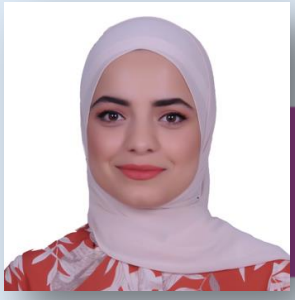
Mrs. Suha is a lecturer assistant of Microbiology. She is teaching Microbiology and Immunology, In addition, she works as a coordinator of Basic science in Nursing College at Hawler Medical University. Ms.Suha graduated from Mousel University- college of Science in 1995, she has got Master degree from Mousel University in 2000-2001. She was head of Microbiology Department in Rizgary teaching hospital from 2001-2002. Mrs. Suha has many studies in Microbiology field especially focused on the impact of Helicobacter pylori on different categories of the community and its correlations with some trace elements.

Ms. Bakhtawar Ziad Omer
MSc Student in College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

I Graduated from Hawler Medical University/ College of Health Sciences with a bachelor degree in Medical Microbiology (2018-2017).
At present I am a second year MSc student in Medical Microbiology and work as healthcare internship in Medya Diagnostic Center.

Ms. Tybah Firas Khalil
Department of Medical Microbiology, College of Health Sciences, Hawler Medical University, Erbil, Kurdistan Region- Iraq

Tybah Firas is a teaching assistant. She attended Koya University in 2017, and then joined Hawler medical university, where she got her Bachelor's degree in Medical Microbiology. She found her enjoyment with biomedical sciences, especially in writing reports and research. She has been working in college of health sciences since the start of academic year 2019 till present.



Ms. Rawezh Salah Ismail
Department of Medical Microbiology, College of Health Sciences,
Hawler Medical University, Erbil, Kurdistan Region- Iraq

My name's Rawezh. I graduated from Hawler Medical University /College of Health Science/Medical Microbiology Department. My rank was first (top one) among all graduated. I was working in many hospital in Erbil city as a trainer and for my research project (Rizgari , Raparin, Nanakali, Central Erbil Laboratory) and for one year I was working as an assistant lecturer in college of health science. My research project in fourth grade under the title of “investigation of intestinal protozoic infections among food handlers in Erbil city, Iraq” was published in international journal of plant archives in 2021.

Abstracts of International Speakers

Keynote speaker: Dr. Lisa R. Pawloski

COVID-19 and obesity: Implications for obesity prevention and global health interventions

Lisa R. Pawloski[*], Kevin M. Curtin[**], Penelope Mitchell[**], Hamdia Ahmad[***],Taban Rasheed[****]

*Department of Anthropology, College of Arts and Sciences, University of Alabama, Tuscaloosa Alabama U.S.A.

**Department of Geography, College of Arts and Sciences, University of Alabama, Tuscaloosa Alabama U.S.A.

***College of Health Science, Hawler Medical University, Erbil, Kurdistan Region, Iraq

****Department of Biology, University of Salahaddin, Erbil, Kurdistan Region, Iraq

Abstract

While the impact of obesity on chronic disease has been widely examined, there is less research regarding the influence of obesity on infectious diseases, particularly respiratory diseases. Here we describe exploratory research which uses available data on COVID-19 cases and mortality, along with estimates of morbidly obese populations in the United States, having one of the highest obesity rates in the world, by county to examine the association between morbid obesity and deaths from COVID-19 and identify potential coincident spatial clusters of morbid obesity and COVID-19 deaths. Results indicate statistically significant positive correlation between population adjusted COVID-19 deaths and cases and estimated population with a BMI>=40. Clustering analyses show there is a predominant similarity in the distribution of COVID-19 deaths and obesity. The challenges of obesity are not limited to the U.S., particularly in economically transitioning regions. One specific region which has undergone recent significant economic transition is the Autonomous Region of Kurdistan. Here we also review BMI status and geographic data collected from 1023 adult women working/studying at two Universities in Erbil. Indicators of underweight were found in 3.4% of the sample and 44% were found to be either overweight or obese. Using such findings may help to identify areas more at risk of not only obesity related chronic diseases, but now new emerging infectious diseases. Our findings suggest it is critical to include an awareness of obesity when developing infectious disease control measures and point to a greater need to focus resources on obesity education and policy initiatives.

Keynote speaker: Prof. Liz Holey

"The future depends on what you do today" Achieving the best rehabilitation outcomes

Liz Holey
Independent International Consultant Leeds, UK

Abstract

Introduction: Physiotherapists around the world are sharing huge challenges and unprecedented change. How we respond to today's priorities will shape the future of our profession. Doing the right thing at the right time will influence the impact we have on the healthcare system, patient outcomes and the economy. This presentation identifies the key factors which should influence our decision making.

Body: An examination of the history of the physiotherapy profession, landmark milestones achieved in different countries and the strengths of the profession highlight key factors for success as we move forward into the future. They will be placed in the context of the rehabilitation needs of the Iraqi population, including the potential impact of Long Covid. Through exploring international guidance and frameworks and reflecting on personal experience, proposals are made. Strategic analysis of need and priority, a focus on professional competency and standards, effective collaboration and influence will strengthen the future contribution of physiotherapy in Iraq to decision-making and patient outcomes.

Conclusion: Being widely regarded as an essential autonomous profession which has a significant impact is a challenging but achievable aspiration. A long-term strategic approach is needed which is based on the best available evidence and lessons learned from history and elsewhere. An understanding of the impact of the current pandemic and the local context is essential to frame the key elements of professional actions to determine the future of physiotherapy in Iraq.

Keynote speaker: Dr. Milladur Rahman

Targeting colon cancer cell migration and invasion by microRNA

Milladur Rahman
Senior Scientist at Department of Clinical Sciences, Malmö, Section for Surgery, Lund University, 214 28 Malmö, Sweden

Abstract

Colorectal cancer (CRC) is the second most leading cause of cancer-related deaths in the world. The direct and indirect management cost of CRC imposes a huge economic burden to the health care system all over the world. Early stages of CRC are curable, however, the prognosis of CRC becomes poor when cancer metastasizes to distant organs. Noncoding small RNAs, known as microRNAs, are shown to regulate multiple mechanisms of cancer cells, including, cell growth, adhesion, invasion and metastasis. Accumulating literatures suggest that four and a half LIM domain 2 protein (FHL2) plays a key role in

cancer cell metastasis and microRNA can regulate cancer cell growth and migration. In this keynote talk I will discuss FHL2 expression and role of FHL2 in colon cancer cells migration and invasion. Finally, I will present our data showing the possibility of targeting FHL2 expression by microRNA and reducing colon cancer cells migration.

Research Presenter: Dr. Tara Dara Miran

Sensitization of cancer cells to endogenous radiotherapy

Tara Miran Andreas T J Vogg , Natascha Drude , Felix M Mottaghy , Agnieszka Morgenroth

Department of Nuclear Medicine, University Hospital Aachen Germany
Department of Nuclear Medicine, Mutterhause Mitte Trier Germany
College of Health Sciences, Hawler Medical University

Abstract

Background: Triple-negative breast cancer has an extremely high rate of relapse. This is particularly due to the existence and survival of cancer stem cells (CSCs) characterized by increased amounts of glutathione (GSH).

Objective: In this study, we evaluated the potential of pharmacological GSH depletion to sensitize CSCs to ionizing radiotherapy with an I-125–labeled nucleoside analog, 5-iodo-49-thio-29-deoxyuridine (ITdU).

Method: for CSCs isolation, MDA MB-231 cells were incubated with CD24 and CD44 microbeads. GSH and reactive oxygen species (ROS) were evaluated by fluorescence-activated cell sorting. GSH synthesis was inhibited with buthionine sulfoximine (BSO). Apoptotic cells were identified with propidium iodide and double-strand DNA breaks were detected by g-H2AX staining. Due to the pronounced therapeutic efficacy and the precise addressing of single tumor cells (“single tumor” kill), Auger emitter bearing nucleoside analogue [125I]ITdU was used for delivery of endogenous radiation to the CSC. For therapy study, BSO treated and untreated mice xenografted with breast CSC received weekly I-125-ITdU. Therapy efficiency was monitored by fluorodeoxyglucose-18-positron emission tomography.

Result: We showed that GSH modulation sensitizes $CD24^-$ and $CD44^+$ breast cancer cells to endogenous nanoradiotherapy. BSO synergistically affects ROS generation induced by I-125-ITdU. In an in vivo study, we demonstrated a complete tumor regression as a consequence of preconditioning with a GSH-synthesis inhibitor prior to treatment with I-125-ITdU.

Conclusion: GSH modulation in combination with an oxidative stress-generating treatment such as endogenous radiotherapy using an Auger emitter offers an extraordinary opportunity for selective and efficient eradication of drug-resistant CSCs

Keywords: Triple negative breast cancer, CSCs, Endogenous radiotherapy

Abstracts of National Keynote Speakers

Keynote speaker: Prof. Dr. Kafia Mawlood Shareef Surchi

Clean technology for waste water treatment

Kafia M. Shareef Surchi
Department of Clinical Biochemistry, College of Health Sciences, Hawler Medical University

Abstract
The increase of population and industrial or agricultural production makes the water pollution more prominent. Among various water treatment technologies, adsorption technique appears to be techno-economically more attractive due to its inexpensiveness, universality and environment friendliness. Heavy metal, drugs, dyes, Pesticides, herbicides and surfactants pollution in water and soil is a global problem. These pollutants can be toxic and carcinogenic even at very low concentrations, and, hence, usually pose a serious threat to the environmental public health. However, currently available heavy metals adsorbents remain limited and most traditional adsorbents come with high utilization cost. Therefore, it is necessary to use high-efficiency, low-cost, environmentally-friendly adsorbent. The most locally available adsorbents are Marble (CaCO3), Rice husk, Barley husk, agricultural wastes and tea waste. Nanoparticle adsorbent demonstrated to exhibit excellent adsorption properties.

Keynote speaker: Asst. Prof. Dr. Jalal Hamasalih Fattah

Oncoplastic breast surgery versus classical mastectomy for patients with breast cancer

Jalal Hamasalih Fattah
College of Medicine, Hawler Medical University

Abstract
Introduction: Breast-conservation surgery (BCS) is established as a safe option for most women with early breast cancer. Recently, advances in oncoplastic techniques have reduced surgical trauma and thus are capable of preserving the breast form and quality of life. In spite of the most BCS defects can be managed with primary closure, the aesthetic outcome may be unpredictable. Oncoplastic reconstruction may begin at the time of BCS (immediate), weeks (delayed-immediate) or months to years afterwards (delayed). With immediate reconstruction, the surgical process is smooth, since both procedures can be associated in one operative setting. Additionally, it permits wider excision of the tumor, with a superior mean volume of the specimen and potentially reducing the incidence of margin involvement. The oncoplastic techniques are related to volume displacement or replacement procedures including local flaps, latissimus dorsi myocutaneous flap and reduction mammaplasty.

Body: Recently, increasing attention has been focused on oncoplastic procedures since the immediate application of plastic breast surgery techniques provide a wider local excision while still achieving the goals of a better breast shape and symmetry. In fact, the modern oncoplastic breast surgery combines principles of oncologic and plastic surgery techniques to obtain oncologically sound and aesthetically pleasing results. Thus, by means of customized techniques the surgeon ensures that oncologic principles are not jeopardized while meeting the needs of the patient from an aesthetic point of view.
In general, the oncoplastic techniques are related to volume displacement or replacement procedures and sometimes include contra-lateral breast surgery. Among the procedures available, local flaps, latissimus dorsi myocutaneous flap and reduction mammaplast techniques are the most commonly employed.
Conclusion: Oncoplastic breast surgery is challenging for oncological and plastic surgeons, demanding understanding of the breast anatomy, ability in reconstructive techniques and a sense of volume, shaping techniques and symmetry. It has many advantages, and there is no doubt that this concept will become more widely available and possibly become standard practice in the near future.

Keynote speaker Dr. Avin M.Arif Maroof

1. Early referral of inflammatory back pain may aid early diagnosis of a hidden ankylosing spondylitis

Avin M.Arif Maroof[*, **]

*Rizgary Teaching Hospital

**College of Health sciences, Hawler Medical Univeristy

Abstract

Low back pain is one of commonest problems prompting a visit to the primary care centers. Up to 5% of patients with chronic low back pain in the primary care setting are diagnosed as having spondyloarthritis, which includes the prototype disease ankylosing spondylitis. Making a diagnosis of ankylosing spondylitis is often delayed for up to 9 years, leading to significant pain, impairment of quality of life, disability, and productivity loss. Patients with early spondyloarthritis often respond better to treatment than those with late established disease. With proper recognition of inflammatory back pain, and the use of magnetic resonance imaging, spondyloarthritis can now be diagnosed much earlier before features are evident on plain radiographs. Referral to the rheumatologist based on onset of back pain (> 3 months) before the age of 45 years, and an inflammatory nature of the pain, or the presence of human leukocyte antigen-B27, or sacroiliitis by imaging, have been confirmed in multi-center international studies to be a pragmatic approach to enable early diagnosis of spondyloarthritis. Adopting this referral strategy for primary care physicians and non-rheumatology specialists, is very crucial to make early diagnosis of Ankylosing Spondylitis, preventing disabilities associating with this disease including Bamboo spine and comorbidities mainly cardiovascular and pulmonary complications, and will improve the quality of life of affected cases.
Keywords: ankylosing spondylitis; axial spondyloarthritis; classification criteria; primary care physicians; referral strategy; Bamboo spine.

2. Role of physiotherapy in treating Adolescent idiopathic scoliosis-case report

Avin M.Arif Maroof[*, **]

*Rizgary Teaching Hospital

**College of Health sciences, Hawler Medical Univeristy

Abstract

Adolescent idiopathic scoliosis (AIS) the most common form of scoliosis is a structural 3-dimensional deformity of the spine and trunk that occurs in otherwise healthy children during puberty with radiological lateral Cobb angle - a measure of spinal curvature - of ≥10 (°). AIS affects between 1% and 4% of adolescents in the early stages of puberty and is more common in young women than in young men. The condition occurs in otherwise healthy individuals and currently has no recognizable cause; however, lifestyle might be a factor. Advances in biomechanics and technology and their clinical application, supported by limited evidence-based research, have led to improvements in the safety and outcomes of surgical and non-surgical treatments. The role of exercise in the nonoperative management of adolescent idiopathic scoliosis is controversial, but there is agreement that a selective exercise program in conjunction with bracing treatment is beneficial. Here we are presenting a case a report of AIS treated by Physiotherapy using combination of manipulative and rehabilitation techniques with bracing. Coming up with a conclusion that physical exercises can have a positive influence on breathing function, strength and postural balance, and that they are useful in reducing specific impairments and disabilities of patients with idiopathic scoliosis.

Keynote speaker: Asst. Prof. Dr. Rebaz Tahir Lak

Overweight and Obesity; causes, prevention, and treatment

Rebaz Tahir Lak

Kurdistan Board of Medical Specialties

Abstract

Introduction: overweight and obesity are defined as abnormal or excessive fat accumulation that presents a risk to health. Obesity is a complex, multi-factorial condition associated with increased morbidity and premature mortality. A crude population measure of obesity is the body mass index (BMI), a person's weight (in kilograms) divided by the square of his height (in metres).

Body: Worldwide obesity has nearly tripled since 1975. More than 1.9 billion adults, 18 years and older, were overweight. Of these over 650 million were obese, 39% of adults aged 18 years and over were overweight in 2016, and 13% were obese. The overall prevalence of overweight and obesity in Erbil city was 74.3% (33.4% overweight and 40.9% obese).

There are certain health conditions lead to weight gain. (PCOS), a condition that causes an imbalance of female reproductive hormones. Cushing syndrome, a condition caused by having high cortisol levels.

Hypothyroidism the thyroid gland doesn't produce enough of certain important hormones. Osteoarthritis causes pain that may lead to reduced activity.

Conclusions: How can overweight and obesity be reduced?

The good news is; overweight and obesity are largely preventable. Healthier foods and regular physical activity are the easiest choice (most accessible, available and affordable)

Behavioural therapy: make lifestyle changes, start with other family members, don't bring un-necessary or junk food, eat slowly and mindfully, 30 minutes per a meal, don't watch TV, social media

Diet: achieve energy balance and a healthy weight, limit energy intake from total fats, shift fat consumption away from saturated fats to unsaturated fats, towards the elimination of trans-fatty acids, increase consumption of fruits and vegetables, and legumes, wholegrains and nuts.

Exercise: at least 150 minutes a week of moderate-intensity physical activity to prevent further weight gain or to maintain the loss of a modest amount of weight, to achieve more-significant weight loss, you may need to exercise 300 minutes or more a week.

Medications, BMI= 30 or greater and bariatric surgery, BMI = 40 or higher.

Keynote speaker: Dr. Tola A. Faraj

Strong association between diets rich in processed foods/PAMPs and Atherosclerosis

Tola A. Faraj

Department of Medical Microbiology, Basic Sciences, College of Medicine, Hawler Medical University

Department of Medical Analysis, Faculty of Sciences, Tishk International University

Abstract

Introduction: It is well recognized that both dietary factors and inflammation contribute to atherosclerosis. Atherosclerosis is a chronic inflammatory disease of the arteries, which is recognized as a major cause of most cardiovascular diseases. However, despite much recent research in this area, the agents responsible for promoting the inflammatory events that underpin atherosclerosis remain to be clearly defined.

Body: Dietary factors could represent candidate stimuli, as they are well established to participate in atherogenesis. For example, studies using animal models revealed that administration of a high-fat diet promoted a state of low-grade systemic inflammatory signaling which was also associated with increased atherosclerosis. Other findings have been reported in human dietary studies, long term (4 weeks) feeding of human volunteers with high fat snacks/foods increased plasma CRP levels significantly. Accordingly, subjects consuming a Western type diet (processed foods), consistently show higher CRP levels than those that adhere to fresh foods, including vegetables, legumes and fish. A panel of aqueous extracts prepared from 24 different supermarket bought processed food products, almost all stimulated production of inflammatory cytokines by human whole blood, and inflammatory gene

expression (IL-1β, IL-6, TNF-α) in leukocytes. Also, quantification of TLR4 and TLR2 stimulants (pathogen-associated molecular patterns/PAMPs) revealed that almost all of the food extracts contained detectable amounts of TLR4/2 stimulants. The existence of certain types of PAMPs in processed foods may be a key step in the stimulation of TLR signaling and the initiation of pro-inflammatory cytokine release.

Conclusion: In conclusion, our investigations confirmed that exposure of myeloid cells to extracts of PAMP-containing foods, leads to pro-inflammatory cytokine production, and that this is dependent on TLR2 and/or TLR4-signalling. These findings suggest that other factors in the modern diet are likely to promote inflammatory signaling.

Abstracts of Researches

Asst. Prof. Dr. Sewgil Saaduldeen Anwer

Removal of Heavy Metals using immobilized microalgae *Scenedesmus ecornis* isolated from Chinarok-Koya

Sewgil Saaduldeen Anwer, Parween M Abdulkareem

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Abstract:

Background: Microalgae are fast-growing, photosynthetic microorganisms, their biomass is essential in a biotechnological application.

Objectives: The current study aimed to isolate and identify microalgae from different sites in Chinarok-Koya and study the ability of immobilized isolated microalgae to remove heavy metals (Cadmium (Cd^{+2}) and Lead (Pb^{+2}).

Methods: In the current study, water samples were isolated from Chniraok in Koya region during March-June 2019 and cultured on the BG11 medium *Scenedesmus ecornis*, was identified according to their morphological characters by using a light microscope and molecularly using 16srRNA. Calcium alginate bead was prepared. The beads obtained by dissolving sodium alginate in 10 ml of water and added to solution of $CaCl_2$ with a final concentration of 20gm/100ml (w/v). The beads were produced in $CaCl_2$ solution and hardened for 1hour in a prepared solution (De-Bashan and Bashan, 2010). To determine the number of beads developed, a known quantity of alginate beads was counted (figure Removal of heavy metals Cadmium (Cd^{+2}) and Lead (Pb^{+2}) were performed by immobilized *Scenedesmus ecornis* beads.

Result: Optimum removal of (Cd^{+2}, 86.4%) with 100 mg l^{-1}, pH 8, 2400 lux, 35℃, 1.5 mg l^{-1}. While *Scenedesmus ecornis* beads showed maximum removal of (Pb^{+2}, 84.8%) with 100mg^{-1}, pH 8.5, 1800lux, 35℃ and 1.5grm beads.

Conclusion: The present study showed ability of microalgae to remove the toxic heavy metals and it can be use in waste water treatment system to remove heavy metals.

Keywords: Microalgae, Heavy metals, immobilization, environmental factors

Asst. Prof. Dr. Rundk Ahmed Hwaiz

1. Evaluation of hepatic enzymes activities in COVID-19 patients

Rundk Hwaiz, Mohammed Merza, Badraldin Hamad, Shirin HamaSalih, Mustafa Mohammed, Harmand Hama
Department of Clinical Biochemistry, College of Health Sciences, Hawler Medical University

Abstract
Background: SARS-CoV-2 or Coronavirus disease 2019 (COVID-19) outbreak which caused by the severe acute respiratory syndrome, has rapidly spread over the world. The exact mechanism how this virus will affect the liver remained elusive.
Objective: The aim of this study was to evaluate the liver function in patients with severe acute respiratory syndrome coronavirus 2 and potential causes of hepatic enzymes disease in these patients.
Method: Clinical characteristics and laboratory findings were collected from patients with COVID-19 who were admitted to the corona center in Erbil city/Kurdistan region of Iraq, from March 10 to July 10, 2020. Serum was collected from patients with COVID-19 and liver enzyme tests were measured. Liver alanine aminotransferase (ALT), aspartate aminotransferase (AST), alkaline phosphatase (ALP), and total bilirubin (TBIL) were analyzed in these patients.
Result: Of the 74 patients, 25 (34.7%) had abnormal ALT activity, 28 (40%) had abnormal AST activity, 12 (20.3%) had abnormal ALP activity, and 39 (52.7%) had abnormal total bilirubin P-value < 0.05. The inflammatory biomarkers CRP and IL-6 in COVID-19 patients with abnormal liver function test (4.9 ± 1.0 mg/dl) and (231.2 ± 35.7 pg/ml) respectively. The levels of both biomarkers were statistically significantly higher than COVID-19 patients with normal liver function test (2.1 ± 0.5 mg/dl) and (128.4 ± 6.2 pg/ml) respectively, P-value < 0.05. However, CRP and IL-6 were not statistically significant different between male and female COVID-19 patients P-value < 0.05.
Conclusion: In conclusion, we found that most of the patients with SARS-CoV-2 have abnormal hepatic enzyme activities and that is might related to virus replication in the liver.

2. The Effect of Ketogenic Diet on Kidney Chemistry

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Abstract
Background: ketogenic diet is an eating plan that emphasizes foods that are high in healthy fats, proteins, and very low carbohydrates. The aim is to consume more calories from fat rather than carbohydrates. It is commonly used as a weight-loss technique and, in rare cases, as a treatment for some diseases.
Objective: The aim of this study was to evaluate or assess kidney function in the individuals with ketogenic diet. Method: A total 31 samples were collected from individuals with ketogenic diet in male

and female aged from 20 to 55, and a control group which composed of 10 individual healthy people without ketogenic diet, and the diet duration was from 2 to 44 weeks. The samples were collected from Dec 2021 to Mar 2021 at Rojhalat emergency laboratory. We have measured serum urea, creatinine and hepatic enzymes in those individuals. We measured it statistically and regarded p-value for significance for less than 0.05.

Result: Our result showed that ketogenic diet reduced the estimated glomerular filtration rate (eGFR) and induced Alanine transaminase (ALT) compared to control group (individual without keto diet), moreover, there is no statistically difference in serum Aspartate transaminase (AST) and bilirubin compared to control group. The mean value of eGFR, ALT, AST, and bilirubin in ketogenic group are (79.3±5.7), (22.7± 3.6), (24.87±3.73), (0.72±0.05) respectively.

Conclusion: We have observed that ketogenic diet affects the kidney function, the function of other organs like, liver and induce hypercholesterolemia.

Dr. Tavga Hushair Salim

Helicobacter pylori induced gastritis and its association with gastric adenocarcinoma in a group of patients in Erbil City

Tavga Hushiar Salim, Salah Tofik Jalal Balaky , Rafal Al-Rawi, Saman Salah eldeen Abdulla, Ahang Hasan Mawlood, Nazar M.T. Jawhar'

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Abstract

Background: Adenocarcinoma is one of the most common causes of Gastric cancer related deaths worldwide. *Helicobacter pylori* is the causative agent of most cases of gastritis, it can cause chronic active gastritis and known as a risk factor for the development of gastric cancer. This study aimed to assess the prevalence of *H. pylori* among patients with symptoms of dyspepsia and other gastritis related symptoms and its association with adenocarcinoma.

Methods: This study was carried out during the period of January 2018 to October 2019 with a total of 227 patients with gastritis related symptoms. The presence of *H. pylori* was detected by Rapid Urease Test (RUT) and histo-pathological tests using biopsy specimens. Statistical Analysis was done by using Chi-square test. $P < 0.05$ was considered to be statistically significant.

Results: From the total of 227 patients with gastritis related symptoms, 26 cases (13.61%) were diagnosed with adenocarcinoma. Their ages were between 13 and 90 years with mean of 47.81± 18.23. The result showed that low severity prevalence of *H. pylori* was highest (111 cases) compared to 17 and 63 cases for high and moderate severity, respectively. Comparison between positive low, moderate, and high *H. pylori* cases for rapid urease test was highly significant (P<0.000). The results showed no association between *H. pylori* severity across various age groups and gender. Moreover, goodness of fit test for metaplasia, activity, glandular atrophy, and endoscopic finding across severity status of *H. pylori* showed highly significant. Four composite categorized groups were initiated based on positive/negative prevalance of *H. pylori* and adenocarcinoma status. Results revealed statistical significance between combination of *H. pylori* and adenocarcinoma with inflammation, lymphoid aggregate, metaplasia, activity of neutrophils, glandular atrophy, rapid urease test, and endoscopic findings.

Conclusion: Histopathology tests and RUT are reliable diagnostic tools for the detection of H. pylori. Data showed significant correlation of chronic active gastritis, mucosal lymphoid follicle formation and adenocarcinoma with Pylori colonizing gastric mucosa. Therefore, screening and total eradication of these infections is an important strategy for preventing gastric adenocarcinoma.
Keywords: *Helicobacter pylori ((H. pylori),* Histopathology, gastric adenocarcinoma, gastritis.

Dr. Ahmed Mohammed Amin

An innovative physiotherapy and psychotherapy approach for the treatment of survivors of torture in a prison in the Kurdistan region of Iraq

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[**]American Center for Rehabilitation
[***]University of Wisconsin, Madison School of Medicine and Public Health

Abstract

Background: Wchan Organization for Human Rights Violations (Wchan) and Northwestern University, USA received international and domestic IRB approval to conduct a randomized controlled wait-list study.

Objective: The purpose of the study is to assess the effect of an interdisciplinary group treatment approach, involving psychotherapy and physiotherapy, with survivors of torture that are incarcerated in a prison in Kurdistan, on symptoms of persistent pain, Post-traumatic Stress Disorder (PTSD), anxiety, and depression.

Methods: A parallel group study design was used to compare a treatment group and a wait-list control group with a total of 30 participants. The treatment group participated in interdisciplinary physiotherapy and psychotherapy group treatment service with 10 group sessions for each discipline. The primary outcome measures in this study were symptoms of persistent pain, anxiety, depression, and PTSD. These were based on, respectively, Central Sensitization Inventory Part A, Hopkins Symptom Checklist-25, and Harvard Trauma Questionnaire Part 4. Secondary outcome measures evaluated physical functioning, sleep quality, and general self-efficacy. Within-groups effects were analyzed using dependent paired t-tests and between-groups effects were analyzed using independent t-tests. Data were analyzed from Baseline (T0) to Post-Treatment (T1).

Results: The results of this study indicate a significant reduction in all the symptoms measured over an 11-week period ($p<.01$). This suggests that the treatment was effective for short-term reductions in symptoms of anxiety, depression, PTSD, and persistent pain, as well as, for improvements in sleep quality, physical functioning, and general self-efficacy.

Conclusions: This presentation describes preliminary evidence for the effectiveness of a culturally and contextually appropriate interdisciplinary approach to encourage implementation of this under-utilized biopsychosocial treatment approach. It also demonstrates the feasibility of implementing research that follows international standards and practices within under-researched settings. Therefore, this

presentation will use this study to catalyze physiotherapists in Kurdistan to deliver biopsychosocial interventions and conduct clinical research.

Asst. Prof. Dr. Kareem Fattah Aziz AL-Barzinjy

Student's perception regarding prevention measures for COVID-19 pandemic in the college of nursing in Erbil/Kurdistan Region.

Kareem Fattah Aziz AL-Barzinjy

College of Nursing , Hawler Medical University

Abstract

Background: In December 2019, a novel coronavirus named SARS-CoV-2 emerged in Wuhan, China, and led to a rapidly spreading outbreak of coronavirus disease2019 (COVID-19). By Jan 30, 2020, COVID-19 was declared a public health emergency of international concern.

Objectives: The Objectives of the study included identifying the students' perception about safety measures use for prevention of Covid-19 and to identify association between variables and their perception about COVID-19.

Method: it is a descriptive, cross-sectional design conducted in the college of nursing in Erbil conducted from 24-12-2020 to 20-4-2021 the estimated sample size is about 100 students among different stages in the college depending on convenient sampling techniques. Data were collected via online application in the college through different communication online by using the questionnaire format. The questionnaire consisted of two main parts. Part one was related to the socio-demographic characteristic of the sample which include (age, sex, address, marital status, stage, type of family) Second part consisted of (12) items related to student's perception of COVID 2019. Depending on Likert scale for scoring system (1 for not agree, 2 for neutral, and 3 for agree). The researcher has taken permission from the ethical and scientific committee in the college of nursing. The data was analyzed through the application of SPSS program version 23.

Results: Majority of the students have agreed and they have good perception with items of prevention and there was no significant association between variables and perception of COVID-19 except in age there was significant association between some items and age.

Conclusion: Majority of the students in the college have perception with items of COVID-19 for prevention. There was no significant association between items and all demographic variables except age so there were significant association between items of (lifestyles, their opinions, and health authority application) and COVID-19).

Keywords: perception, prevention, COVID-19, nursing.

Dr. Mohammed Yousif Merza

Effect of Garlic on Serum Lp-PLA2, Blood Pressure and Blood Glucose Levels

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Department of Clinical Biochemistry, College of Health Sciences, Hawler Medical University

Abstract

Background and objective: There are many investigations on the effect of garlic on the body and its potential therapeutic roles, which makes garlic a useful addition to our diet either as food or as supplements. There are three objectives attained via conducting this study; first is to investigate the effect of garlic on Lp-PLA2 (a novel biomarker analyzed for the first time in Iraq), second is its influence on blood pressure, and lastly on blood glucose level.

Methods: Data was collected from twenty students of different age groups within a period of one week; using Paired Sample T-Test (dependent sample t-test) to determine the mean difference between two sets of observations.

Results: Garlic supplements can be used to prevent and reduce the risk for cardiovascular diseases and hypertension (excluding contraindications). Garlic can be beneficial in reducing the risk of heart attacks and stroke in young adults.

Conclusion: Lp-PLA2 and blood pressure levels were reduced but no affect was observed in blood glucose levels.

Dr. Suha Talal Abd

Effectiveness of PRP in soft tissue healing acceleration after tooth extraction in diabetic patients type 2

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College of Dentistry, University of Baghdad

Abstract

Background: Diabetics are usually thought to have increased healing problems related to dental extractions. Platelet rich plasma a biological therapy that restarts and accelerates the healing process, providing an improvement of patient quality of life. Having the advantages of biocompatible safety, low cost, simple preparation and clinical effectiveness.

Objectives: to assess the effectiveness of PRP in soft tissue healing acceleration after tooth extraction in diabetic patients type 2.

Patients and Method: Sixty control diabetic patients with split mouth technique were planned in this study that make120 dental extraction sockets. Control group was 60 extraction sockets without PRP and study group: 60 extraction sockets with PRP. Checking socket's healing, socket closure (degree of

epithelization), presence or absence dry socket according to clinical examination and evaluate pain by visual analogue score (VAS) after one week from extraction.
Results: There was a highly significant difference between whole blood and platelet rich plasma in platelets count and white blood cell. The results also shows that the healing score level of PRP socket was significantly higher than the whole blood socket. Paired t-test revealed a highly significance level for the visual analogue scale between two groups and demonstrated a highly significant difference between control and study groups for both measurements of degree of epithialzation.
Conclusion: There are many advantages for clinical application PRP in extraction sockets in diabetic mellitus type 2.
Key words: Platelets rich plasma, Soft tissue healing, Tooth extraction

Ms. Yosra Raziani

1. Do the psychosocial factors affect the coping strategies in multiple sclerosis?

Yosra Raziani
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Abstract
Background: Multiple sclerosis (MS) is one of the most common neurological disease that affect both physical function and the quality of life, and the victims face serious difficulty in coping effectively with their conditions.
Objective: This study was undertaken to assess the impact of psychological factors on coping strategies in patient with multiple sclerosis.
Design: A descriptive-analytical study.
Method: The study population comprised of men and women with Multiple sclerosis. In order to collect data, the standard questionnaire of coping strategies of Lazarus and Folkman was prepared. The researcher-made questionnaire of social protection, the self-efficacy questionnaire. were used. Spearman correlation coefficient test, Kruskal-Wallis test, and Mann-Whitney test were used to analyze the data.
Results: The rate of seeking social support, problem solving, and confrontational confrontation in the middle and upper socioeconomic base is significantly higher than the low socioeconomic base, but there is no significant difference between the middle and upper classes. There was a high positive correlation between social support and Positive re-evaluation (r =0.73), and Thoughtful problem solving (r =0.76). The correlation results for Perception of disease with self-control (r =-0.72) and seek social support (r =-0.73) was high negative (p= 0.00).
Conclusion: patients 'perceptions of their illness shape patients' common sense beliefs and their own implicit beliefs about their illness, and people with lower socioeconomic status were more likely to use emotion-avoidance coping strategies and less problem-solving coping.
Keywords: Multiple Sclerosis, Social Networking, Feeling of Self-Efficacy, Coping Strategi

2. Does corona virus affect patient safety culture? A cross sectional study

Yosra Raziani
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Abstract
Background: The current pandemic of corona virus has affected health care services in all aspects. Patient safety culture is one of the key elements in improving safety and patient care quality, and in intensive care unit is more sensitive than other units. assessing the level of existing safety culture is the beginning of creating a safe culture in the organization, because moving towards securing care without knowing the current situation may lead to increased costs and also expose the organization to new risks.
Objective: comparing the patient's safety culture of coronavirus ward with the other inpatient wards were the primary aim of present study.
Method: This study was a cross-sectional study. The participants were 60 nurses; 30 from covid-19 ward and the rest from the other inpatient wards (except CCU and ICU), assigned to two groups. Data were collected using the Hospital Survey on Patient Safety Culture. Using SPSS software version 22, data were analyzed by independent sample t -test, Mann-Whitney test and Spearman's correlation test.
Results: there is no statistically significant difference between two groups ($p > 0.05$) but Mean score is different in dimensions. The overall mean score of the patient's safety culture in the coronavirus ward is 117 ± 20.91, which indicates that the level of the patient's safety culture is medium to low, and in other inpatient wards is 122.66±23.47.
Conclusion: The results showed that the level of the patient's safety culture in both groups were moderate, with the difference that in the coronavirus ward due to the more severe conditions of patients, this rate tends to a week. Therefore, it requires special attention from managers for better performance in dealing with stressful and unpredictable conditions.
Keywords: Corona virus, nursing perspective, patient safety culture, patient right.

Mr. Ahmed Naif Ali

Perception, acceptance, and hesitancy of public regarding Covid-19 vaccine and immunization: A literature review

Ahmed Naif Ali, Hamdia Mirkhan Ahmed, Karim Fatah Aziz
College of Nursing, Hawler Medical University

Abstract
Background: Developing a vaccine against COVID-19 is widely regarded as a critical method for containing the pandemic. Public adoption, on the other hand, is contingent on one's view's to accept and perceptions about the vaccine.
Objective: This literature review aims to determine the factors that influence public acceptance and hesitancy against Covid-19 vaccines.
Objective: To determine the sociodemographic features associated with the public's understanding and acceptance or fear of Covid-19 vaccines. To ascertain the causes that contribute to acceptance or refusal of the covid vaccine.

Method: 22 articles were searched and selected through PubMed database, Google Scholar database, and Scopus database between January 1st, 2020 to 30th December 2020.
Conclusion: a pandemic period of the Covid-19 virus is urged the population's needs toward the vaccine but at the same time acceptance rate was varied between each country's population and fear of the Covid-19 vaccine demonstrates the conspiracy ideas from some countries. Furthermore, studies are required to be done in the Middle East and Africa south and Middle America while addressing fear and hesitancy toward the vaccine should be put in the consideration to build trust by the population
Keywords: vaccine acceptance, vaccine hesitancy, Covid-19 vaccine, coronavirus

Mr. Sirwan Ahmed Rashid

Screening of gene encoding biofilm production of *Staphylococcus aureus* isolated from Erbil city patients

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Abstract
Background:Gingivitis is the most common oral diseases and it is brought on by the accumulation of microbial plaques in persons with inadequate oral hygiene.
Objectives: This study is aimed to identify *Staphylococcus aureus* with gingivitis cases with detection of their biofilm gens.
Methods: In this study fifty sample of patients diagnosed clinically as having gingivitis were collected from laboratory of Faculty for Dentistry in Hawler Medical University during the period of November 2018 to February 2019. Eleven isolates of Staphylococcus aureus bacteria were identified by using traditional culture method and vitek 2. The susceptibility of Staphylococcus aureus isolates to different antibiotics was examined.
Results: Vancomycin was the most effective antimicrobial agents against staphylococcus aureus isolates (100%), Imipenem (81.8%), Tetracycline (72.7%), Amikacin (72.7%), Chloramphenicol (63.4) and Ciprofloxacin (54.5%) and many of isolates showed resistance to Ampicillin (81.9%), Clindamycin (63.6%) and Erythromycin (63.6%). In addition, estimate the ability of Staphylococcus aureus to produce biofilm were studied using tube method. In addition, the results showed that 9 (81.8%) of the isolates are biofilm positive and biofilm producers and 2 (18.2) isolates were biofilm negative. As well as the results of molecular analysis by using PCR showed that isolated Staphylococcus aureus were carried biofilm genes icaC (100%), icaD (100%), cna (90.9%) and fnbA (100%).
Conclusion: Gingivitis is one of the most common oral diseases within our region and in this study indicated that most of Staphylococcus aureus isolates were harbor icaC, icaD, cna and fnbA Biofilm gens.

Ms. Sara Bahram Miran

Synthesis and Significance of Gold Nanoparticles

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Abstract
Background: The use of nanotechnology as a modern tool for disease detection, control, and cure has recently gotten a lot of attention in the biomedical field. Gold nanoparticles have features that differ from large gold crystals, and they're used in a variety of applications including optics, catalysis, and drug delivery.
Objectives: The development of techniques for the synthesis of nanoparticles of well-defined size, shape and composition is a challenge and an important area of research in nanotechnology. The ability of microorganisms to produce inorganic nanostructures and metal nanoparticles with properties similar to chemically-synthesized materials, while exercising control over the size, shape and composition of the particles.
Methods: The total screened studies were 124 Studies, the preferred studies to be included were 68 studies. The data were collected from PubMed, Google Scholar, American Society of Microbiology, Springer, Science and Business Media Dordrecht, Science Direct, Scopus, National Center for Biotechnology Information (NCBI), Web of Science, and Scientific Information Database (SID) for recent reviews. The old and new studies that published on Nanotechnology and Gold Nanoparticles till the most recent studies that were conducted in 2021. The term strategies were used in English language.
Results: The extracellular conversion of soluble harmful inorganic ions to harmless nano-clusters makes bacterial-mediated nanoparticle production more important in commercial applications. Nanomaterials have a high probability of delivering several, locus-specific drugs to the disease locus due to their small scale, which allows them to pass across barriers and into individual cells. AuNPs are promising prospects for delivering DNA and RNA, Nucleic acids are protected by AuNPs, which keep them from being degraded by nuclease.
Conclusions: Several researchers have explained how to make gold nanoparticles using various bacteria. Green gold nanoparticle synthesis is a simple and environmentally sustainable process that eliminates the problems associated with chemically formed gold nanoparticles in biomedical applications. Wide biomolecule distribution using AuNPs as a delivery vehicle is a novel and exciting area that has gotten a lot of attention in recent years, but further research is needed to design structures capable of intracellular and intranuclear conjugate delivery with minimal side effects.

Ms. Lana Dawod Nasih

Impact of probiotics on prevention and control of colon cancer

Lana Dawod Nasih, Fattima A. Aboodi
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Abstract
Background: Cancer is a condition in which abnormal cells divide uncontrollably. Probiotics are live microorganisms that make health assistance to the host when provided in adequate amounts.

Specifically, colo-rectal cancer, probiotics perform a significant activity in preventing and treating tumors. Probiotics have an anti-cancer effect by secreting anti-inflammatory substances, changing the colon microbiome by inhibiting the development of destructive microorganisms, or inhibiting their formation by reducing the production of bacterial fecal enzymes. Furthermore, they may exhibit anti-oxidative performance through ROS and synthesis of anti-oxidative enzymes, as well as anti-proliferative role through apoptosis triggering and cancer cell growth induction.

Objective: The purpose of this overview is to give fundamental and up-to-date knowledge on the mechanism of the profitable role of probiotics in the human species, in the inhibition and medication of colorectal tumors and also to perform the effect of probiotics in colorectal cancer patients helps to treat the colorectal tumor and how it affects the diversity of intestinal microbiota.

Methods: The sources were checked in Google Scholar and PubMed for publications mentioning the potential effect of different probiotics on colo-rectal cancer. About 30 sources had been read and information collected and written down in 27 up-to-date sources.

Result: In our searching and findings on many animal experiments as well as human volunteers we found that probiotics are safe if it's given in adequate amount and have a potential effect on the prevention and treatment colo-rectal cancer which is mentioned in the abstract.

Conclusion: The applying of probiotics and symbiotics as a prophylactic treatment in patients with colorectal tumors is, therefore, a successful safety approach to minimize infection-related morbidity rates and opening the way for possible treatment methods for colorectal cancer. Treatment interventions such as optimum dose and duration of consumption play an important role.

Mr. Jihad Abdulrazzaq Sleman

Antimicrobial Susceptibility Profile of multi Resistance Gram Positive Bacteria Isolated from Cancer Patient in Erbil Governorate\Iraq

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*College of Health Sciences Hawler Medical University
**Cihan University and Medical representative at American Care Company for supplements

Abstract

Background: The evolution of cancer therapy and the changing epidemiology of major Gram-positive pathogens mean that ongoing efforts are needed to understand and mitigate the impact of these bacteria in patients with malignancy.

Objectives: To carry out a retrospective study on Gram positive bacteria isolated from cancer patients in Erbil city and analyze its epidemiology, antibiotics susceptibility patterns.

Methods: A total of 720 samples were collected from five different sources (urine, blood, throat swab, wound and sputum) from patient attending Nanakali Hospital and from both male and female from January 2018 to December 2018. Gram-positive bacteria identified by sing microscopical, morphological, biochemical tests with antibiotics susceptibility testing were performed by using Vitek2 compact system against 8 antibiotics.

Results: From 720 samples collected only 193(26.8%) cases had been identified as Gram-positive bacteria. Results showed that *Staphylococcus epidermidis*. Isolates are the most frequent encountered

52(7.2%), *Staphylococcus saprophyticus* isolates were 37(5%), *Staphylococcus aureus* 13(1.8%) followed by Streptococcus pyogenic were 47(6.5%), *Streptococcus viridance* 2(0.3%), Enterococcus spp. were 26(3.6%) respectively. The number of isolated *Staphylococcus epidermidis* was high in female 35(18%) compared with 17(8.8%) in male. while for *Streptococcus pyogenes* was higher in males than females 29 (15%) in male 18 (9%) in female, *Streptococcus viridance* only found in females 2(1%) but for *Enterococcus spp*. was 22 (12.4%) in female and 4 (2%) in male, Gram positive bacteria isolates from cancr patients showed high resistance (60%) to Tetracycline, Levofloxacin (56%) ,(44.5%) to Vancomycin respectively. On the other hand, Gram positive bacteria isolates from cancer patients showed high susceptibility (63.7%) to Imipenem, Meropenem (62.3%) and Amoxicillin (28.5%) respectively.

Conclusions: These finding offer a reliable measure of prevalence of multidrug resistance Gram-positive bacteria in cancer patients in our region and provides a baseline for future studies which will enable the monitoring of trends overtime.

Ms. Zaynab Yaseen Ahmed

Role of Innate Immune System during COVID-19 Infection

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Abstract

Background: Corona virus was determined as an infectious agent causing severe acute respiratory syndrome (SARS-COV-2) and pneumonia outbreak in Wuhan, China in January 2020. It was then determined that human to human transmission was occurring through droplet contact.

Objective: To evaluate the adequate articles about the role of innate immunity responses directed against COVID-19 infection and the role of innate immunity in protection of the host against COVID-19.

Methods: Seventy-two articles published online were selected and reviewed for this study, among these articles, only sixty-seven articles were selected. Articles that discussed the major points of interest regarding the role of innate immune system during corona virus infection and focused on the mechanisms of protection provided by the innate immune responses during COVID-19 infection were selected.

Results: Coronaviruses in general encode various proteins that antagonize IFN signaling representing an inti-immune mechanism effect and are considered as vital mechanisms for manipulation of the innate immune response by the virus. Studies reveal that autopsied COVID-19 infected patients showed significant neutrophil infiltration. Macrophages can be infected by SARS-CoV-2 indicating the ability of the virus to directly manipulate macrophages to evade immunity. During severe COVID-19 infections, reduced NKs count within peripheral blood is noticed.

Conclusions: SARS-CoV-2 has evolved many mechanisms to evade the innate immune response to be able to cause clinical disease. Most of the reviewed articles agreed on the importance of regulation of innate immune responses during COVID-19 infection as a preventive measure against progression of infection into a severe stage.

Keywords: SARS-COV-2, COVID-19, Innate immunity, Innate immune response, Wuhan.

Poster Presentations

Prof. Dr. Payman Akram Hamasaeed

Effect of probiotic on cholesterol level

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Abstract
Background: In these times, treatment of diseases changed from artificial drugs to natural drugs that derived from either plants or microorganisms. The natural drugs are continuously being shown for their feasible pharmacological importance particularly for their anti-inflammatory, anti-fertility, the antibiotic and antioxidant .As a natural drug, probiotics have been come out new organization tools for control of several diseases.
Objective: The most significant factor for cardiovascular disease is high blood cholesterol. The purpose of the present study was to examine the effect of yogurt on high blood cholesterol.
Methods: this crossover and randomized trial include 40 participators with high blood cholesterol 272-305 mg/dL they consume low-fat yogurt 2 tablespoons for 2 weeks. Lipid profile test was done before consuming yogurt and at the end of a period.
Results: The results showed, yogurt consumption caused a significant reduction in total blood cholesterol p value.027 ($P<0.05$).
Conclusion: studies could be carried out on individuals who are particularly controlled. Finally, as the study proved, it is recommended that individuals with high blood cholesterol consume yogurt about 2 tablespoons daily before sleep. The using up can reduce total blood cholesterol.
Keywords: Total blood cholesterol, lactobacilli, bifidobacteria, yoghurt.

Asst. Prof. Dr. Sahar Mohammed Zaki

Relationship between vulvovaginitis in women with the candida species

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Abstract
Background: Vulvovaginal candidiasis caused most commonly by Candida species, especially candida albicans, women in their lifetime at risk to infect by candida species. Objectives: to determine the relationship of Vulvovaginal infection with candidiasis and its association with some risk factors and the incidence of different species of Candida among patients with vulvovaginitis.

Methods: 300 samples from high vaginal swabs obtained from females attending maternity teaching hospital in Erbil City complained from signs and symptoms of valvovaginitis from the period September 2019 to February 2020. High vaginal swabs collected from patients and exposed to direct microscopy, cultured onto Sabouraud Dextrose and, Blood agar and species identification done by using an automated VITEK 2 compact system.
Results: the incidence of vulvovaginal candidiasis was (57%), the highest incidence of positive cases were in the age range(30-34) years and the positive culture among pregnant women was 73(63.4%), it was higher among diabetic females and antibiotic users 49(80.3%), 16(64.4%) respectively, and the positive culture for candida spp among the contraceptive pills was higher 40(60.6%) than non-users for IUCD user the positive culture was 31(68.9%). The Candida species which identified were distribute as follow: Candida albicans was 147(86%) Candida glabrata 16(9.4%), Candida Parapsilosis 6(3.5%) and, Candida krusei 2(1.2%).
Conclusion: vulvovaginal candidiasis is more in the young age group and more frequent in the pregnant females. Diabetic patients and those using antibiotic and contraceptives. Candida albicans had the highest percentage among positive isolated
Keywords: candidiasis, Candida spp, pregnancy

Asst. Prof. Dr. Sewgil Saadudeen Anwer

Biodiesel Production from Iraqi strain of microalgae-*Spirulina subsalsa*

Sewgil Saaduldeen Anwer*, Parween M Abdulkareem**
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Abstract
Background: Biodiesel is one of the promising alternatives fossil fuels. It can be made from various renewable sources.
Objectives: Objective of the current study is to use new Iraqi strain of microalgae in biodiesel production
Methods: In this study new strain of microalgae *Spiulina subsalsa* isolated and cultured on BG11 medium. After identification of genera optimum growth condition studied by using the affecting of temperature, pH and light intensity to algal fresh and dry weight.
Results: The results have shown the optimum growth rate showed at 28℃, pH 8 and 1800 lux. The process of biodiesel production involved a chemical reaction between algal oil and methanol through transesterification. The results showed production of biodiesel from oil extracted by hexane. The obtained biodiesel analyzed using ASTM methods to determine the characteristic fuel properties; kinematic viscosity (3.45 mm^2 sec^{-1}), density (0.8897g cm^{-3}), total sulfur content (0.0134 %), flash point (150℃) for *Spirulina subsalsa*.
Conclusion: New strain of microalgae *Spirulina subsalsa* was successfully used as a raw material for biodiesel production
Keywords: Biodiesel, Microalgae, Dry biomass, Transesterification, oil, hexane

Asst. Prof. Dr. Payman Ali Kareem

Evaluation bacteriological and chemical properties for water from different sources in Erbil city

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Department of food technology, College of Agricultural Engineering Sciences, Salahaddin University- Erbil

Abstract

Background: In this study, chemical and bacteriological qualities of drinking water (Hotel, Restaurant, Department of internal 1, Department of internal 2 and Department of internal 3) in Erbil were examined to compare their compliance with Microbiology laboratory of Directorate of Water and Sewerage Quality Control for bacteriological analysis which is from World Health Organization. Twenty (20) samples were analyzed for chemical includes (pH, Turbidity, electrical conductivity, Alkalinity, total hardness, chlorides, sulfates) and bacteriological water quality .Total coliforms, faecal coliforms bacteria were not present in any of the water samples .While (5%) of the water samples had turbidity values higher than contents of analyzed waters standard, The study indicated that drinking water in these places in Erbil were good and hygienic for consumption.

Method :A total of 20 samples of water 4 samples for each place in Erbil were collected through a stratified random sampling method. The bacteriological parameter assessed was the number of viable *E. coli* coliforms count as indicators for bacteriological quality of water. All samples were analyzed including pH, Turbidity (Tur), electrical conductivity (EC) , Alkalinity (Alk) ,total hardness (TH), chlorides concentration was measured by silver nitrate titration method, sulfates (SO4-2)was determined spectrophotometrically using the barium sulfate turbidity method, and cations which include potassium (K+), calcium (Ca2+), Nitrate (NO3).

Result: All bacteriological & All chemical test results was satisfactory to Microbiology laboratory of Directorate Of Water and Sewerage Quality Control, only 1(5%) samples were Turbidity over range (0. 6) and not satisfactory giving the total number of satisfactory result for 20 water samples (95 %).

Conclusion: The chemical and bacteriological quality properties of randomly selected water sample and sachet drinking water in some places in the Erbil were analyzed successfully. Total coliforms, faecal coliforms bacteria that principally characterize drinking water quality were not present in any of the water samples.

Keywords: Quality control, Erbil; Bacteriological, chemical test.

Mr. Darya Assi Younus

Determination of oxidative stress levels and someantioxidant enzyme activities in rheumatoid arthritis

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Abstract
Background: Rheumatoid arthritis (RA) is the most common form of inflammatory arthritis, which is an autoimmune disease characterized by chronic inflammation of synovial joints, ultimately leading to joint destructions and permanent disability. In RA oxidative stress are impaired (which caused by free radicals) might have an essential role in the etiology of RA. Objectives: The objective of this study was to determine oxidative stress by measuring malondialdehyde and enzymatic status by estimating superoxide dismutase, catalase and glutathione peroxidase in patients of RA and then comparing with healthy individuals.
Method: To further investigation about the levels of the oxidative stress and the antioxidant parameters, 60 subjects involved in this study, 30 patients who diagnosed with Rheumatoid arthritis and 30 of them are healthy subjects that they have not any diseases as a control group. The study is carried out in Rheumatology Department of Rizgary Teaching Hospital and CMC private hospital and general hospital Taq Taq in Erbil north of Iraq. Blood samples from the subjects were collected and the sera of both groups were used to determine the malondialdehyde (MDA) level which is the end product of lipid peroxidation and the antioxidant enzyme activities superoxide dismutase (SOD), glutathione (GSH), and catalase (CAT)
Result: The serum level of MDL was higher in RA patients compared with the control group, the Differences among both groups was statistically significant ($P < 0.05$)
Conclusion: There is oxidative stress in RA patients evidenced by increased serum MDA and decreased antioxidant enzymes activity
Keywords: Rheumatoid Arthritis, SOD, GSH, CAT, MDA

Mr. Ali Idris Jamal

Association between vitamin D and COVID-19

Ali Idris Jamal
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Abstract
Background: Vitamin D, which has immunomodulatory effect, can reduce risk of infections and concentrations of pro-inflammatory cytokines, and studies have revealed relationship between the levels of vitamin D and severity of COVID-19.

Objectives: The aim of the review is to investigate the relationship between the levels of vitamin D and severity of COVID-19.
Methods: About 23 articles had been read and information had been collected from different articles from different years, and the review articles has been searched in Google Scholar, PubMed, Scopus. Inclusion Criteria: 17 articles were included from different references and mostly related to my topic. Exclusion Criteria: 6 articles were excluded due to their lack of information related to my topic and they were old articles
Results: A total of 81 samples were collected from ages, genders healthy status, descriptive statistics for all demographic questions such as gender, age, and infecting of COVID-19. The percentage of female (70.4%) is higher than the percentage of male's participants (29.6%) while most of them are aged between 15 and 30 years (65.4%). The percentage of infected people of Covid19 (82.7%) is higher than the non-infected people (17.3%) descriptive statistics for all questions about vitamin D and Covid19 such as vitamin D group, vitamin D supplement, sun exposure, severity, detection. According to most of the people whose aged between (15-30) years old were made the Vitamin D (25-OH) test about 24.7% while about 56.3% of patients had insufficiency in their vitamin D results. Also, 43.8% had a deficiency in their vitamin D results with moderate illness (47.8%). Most of the patients who were under sun exposure in less than 5 minutes (40.7%) while 62.3% of them have taken Vitamin D Supplement.
Conclusion: The percentage of female is twice than the percentage of male's participants while most of them are aged between 15 and 30 years. The percentage of infected people of COVID-19 is higher than the non-infected people. According to results, most of the people were made the Vitamin D test while about half of them had insufficiency in their vitamin D results with moderate illness of Covid19. • Most of the patients were under sun exposure in less than 5 minutes while more than fifty percent of them have taken Vitamin D Supplement. • There is no relation between the mean of Vitamin D Supplement and Vitamin D Result • There is a significant relation between gender and Sun Exposure daily because, female percentage under sun exposure in less than five minutes is four times higher than the male's percentage who were under sun (16.1%) for the same time.
Keywords: SARS-CoV-2, COVID-19, Vitamin D.

Ms. Suha Hussein Ahmed

Helicobacter pylori infection in pregnant women and it's correlation with the alterations of some trace elements levels in the serum at Maternity Teaching Hospital in Erbil City

Suha Hussein Ahmed, Saad Abdul Kareem Mohammed
College of Nursing, Hawler Medical University

Abstract
Background: *Helicobacter pylori* infection affects around 50% of the world population and it is more predominant in developing countries. *H. pylori* play a vital role in the development of chronic gastritis, gastric ulcer, duodenal ulcer, gastric adenocarcinoma .
Objectives: The Current study aimed to investigate the levels of some Trace elements (Copper and Zinc) of infected pregnant women with *H pylori* for the in some population of Erbil City at Maternity Teaching Hospital

Methods: This study was carried out on pregnant women that attended to Hawler Teaching Maternity hospital who's diagnosed with gastrointestinal tract (GIT) disorder. 120 pregnant women were included in this study, all are in the age group of 20-40 years in the first, second and third semester.
Questionnaire that constructed for the purpose of the study is based on face to face interview. The serological and Biochemical tests that have been done to detect *H. pylori* infection by using Antigen Cassette test followed the instruction of the procedure and secondly ELIZA test was used to detect Anti-*H. pylori* IgG, IgM antibodies. Investigation of the concentrations of trace elements (copper and zinc) was achieved using flame atomic absorption spectrometry.
Results: The current study reveals that an alteration of zinc level in serum of positive anti- *H. Pylori* Ig group was (48.904 ± 18.3486) (µg/dl) comparing with the negative group (90.757 ± 9.2727) (µg/dl) with highly significant difference ($P < 0.01$). While serum copper levels of positive group was (100.412 ± 23.8234) (µg/dl), , documented as normal highly significant ($P < 0.01$) compared to the negative anti- *H. Pylori* Ig group (114.971 ± 20.4995) .
Conclusion: The valuable finding of this study is that *H pylori* infection may influence the absorption of essential trace elements like zinc and copper which decreased in the case of the level of Zinc in serum significantly. These Alterations of the levels of them may harm cellular and physiological functions
Keywords: *H. pylori*, Pregnancy, Copper, Zinc

Ms.Bakhtawar Ziad Omer

Cytokine storm syndrome in coronavirus infectious disease-2019 Infection (COVID-19)

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Abstract
Background: Cytokine storm syndrome (CSS), is an uncontrolled inflammatory response of the immune system resulting in over secretion of proinflammatory cytokines, a systemic hyperinflammatory state generating a specific syndrome characterized by persistence high fever, pan cytopaenia, lymphadenopathy, hyperferritinaemia, hepatosplenomegaly, and central nervous system (CNS) and multiple organ involvement.
Objectives: The aim of this study was to understand the details of the immune reaction in COVID-19 and the pathophysiologic consequences of cytokine storm syndrome.
Methods: Forty nine published articles were screened and reviewed, only thirty articles were selected to be included into the current review study. Articles that emphasized on the role of SARS CoV-2 in the development of cytokine storm in COVID-19 were selected.
Results: It has been revealed that there is a significant rise of inflammatory cytokines in SARS-CoV-2 infected patients, indicating the presence of cytokine storm in severe cases. The CSS is marked by the over activation of the immune system, resulting in the over secretion of a broad range of cytokines such as tumor necrosis factor (TNF), Interferons (IFN), interleukins (IL) -1, IL-6, and IL-18,..etc. The existing studies have recorded that cytokine storm syndrome could be the main leading factor for deadly inflammatory reactions in critically ill patients with COVID-19.

Conclusion: There is still not an overall understanding of CSS pathogenesis. The existing studies have revealed that the emergence of CSS is associated with disruption of mechanisms regulating the proinflammatory and anti-inflammatory reactions (imbalance of proinflammatory and anti-inflammatory mechanisms), and the involvement of a wide range of cells and cytokines, disrupting the regulatory mechanisms of the immune system, all these direct the condition toward a sequence of clinical presentation.
Keywords: SARS-CoV-2, COVID-19, cytokine storm syndrome.

Ms. Tybah Firas Khalil

The role of *Escherichia coli* and *Klebsiella pneumoniae* in urinary tract infections in Erbil City

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Abstract
Background: A urinary tract infection (UTIs) is an infection of part of the urinary tract, more frequent in females. Escherichia coli is the most common uropathogen, which is normal flora of human's intestine but under certain conditions become pathogenic, followed by *Klebsiella pneumoniae* which is a pathogen outside the gut. Objective: the present study determines the incidence of Escherichia coli and Klebsiella pneumoniae caused UTI, distribution according to genders, and the susceptibility patterns of both isolates.
Methods: This cross-sectional study was conducted from 1 June to 11 September 2019 at Rizgary teaching hospital, Erbil, Iraq. (550) urine samples were collected, and then identified microscopically and by culturing on MacConkey agar and blood agar and then incubated aerobically for 18–24 hour at 37 °C. The identified bacterial isolates were tested for antimicrobial susceptibility by Vitek 2 compact system.
Results: Out of 550 urine samples, 26.6% showed significant bacterial growth. *Escherichia coli* (20.4%) was the most common pathogen, followed by *Klebsiella pneumoniae* (6.2%). Most of the *Escherichia coli* isolates were (>90%) resistant to aztreonam, ticarcillin, piperacillin, ceftazidime, and all were (100%) sensitive to imipenem, meropenem and Amikacin. Furthermore, *Klebsiella pneumoniae* isolates were (100%) resistant to ticarcillin and piperacillin, and all showed (100%) sensitivity toward piperacillin/tazobactam, imipenem, meropenem and amikacin.
Conclusions: *Escherichia coli* and *Klebsiella pneumoniae* were predominant cause of UTI in different age groups. High susceptibility rates were observed against carbapenem and amikacin, which are the most effective for treating *Escherichia coli* and *Klebsiella pneumoniae* caused UTI.
Keywords: *Escherichia coli*, *Klebsiella pneumoniae*, urinary tract infection, uropathogen, antibiotic resistance.

Ms. Rawezh Salah Ismael

Investigation of intestinal protozoic infections among food-handlers in Erbil City, Iraq

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Abstract
Background: Intestinal protozoa parasitic infection are one of the most common problems in developing countries, the spread of parasitic disease via food handlers is of great importance for maintaining hygienic quality of food prepared and served by them. Objectives: the objective of this study was to determine the magnitude of intestinal protozoa parasitic infection and associated factors among food handlers serving in Erbil city food handling establishment.
Methods: A total of (10561) samples were examined for detection of intestinal protozoa parasitic infection among food handlers in Erbil city from July (2019) to January (2020) by using direct wet mount preparation in normal saline and iodine solution, microscopically examined. The data collected were coded, using specially designed coding system and entered into Microsoft Excel sheets, and then imported to a data management solution, statistically package for social sciences (SPSS).
Results: Out of (10561) stool samples examined of food handlers revealed that 769 (7.3%) were positive for intestinal protozoa parasitic infection by direct microscopic examination. The predominant had one intestinal parasite 776 (95.3%) and 3 (0.03%) of food handlers have been diagnosed with double intestinal parasites. *Entamoeba histolytica* was the most prevalence parasite 619 (80.1%), followed by *Giardia lamblia* 152 (19.8%) and *Hyminolepis nana* 1 (0.1%). The most prevalent rate of intestinal protozoa infection among females 102 (7.9%) was higher than males 667 (7.2%), statistically there was significant difference. The prevalence of intestinal protozoa parasitic infection according to age, the highest rate of infection among 10-19 age groups and the lowest rate was among 60 age groups. According to months the prevalence of intestinal protozoa parasitic infection, showed significant differences in spite of highest rate of infection was recorded in September (10.3%) and the lowest rate was observed in October and November (6.2%).
Conclusions: The high prevalence of intestinal protozoa parasitic infections in this study highlights the importance of food handlers are probable sources of parasitic infections. The prevalence rate of some intestinal parasites was relatively low in the food-handlers compared to the other studies. We also concluded that the rate of infection was affected by age, months and the diagnostic technique used in hospitals and laboratories.

Workshops' Agendas

Dr. Hiro Khoshnaw, Mr. Jay-Mark Jocson, Ms. Theresia Stuckey, Ms. Olivia Epps

The value of a multidisciplinary team approach to rehabilitation

Hiro Khoshnaw, Jay-Mark Jocson, Theresia Stuckey, Olivia Epps
Department of Ageing and Health, Royal Surrey NHS Foundation Trust (RSFT), Guildford, UK

Objectives:

- To understand the benefits of a holistic approach in rehabilitation
- To appreciate the role of each health care professional within a multidisciplinary team (MDT) in a UK setting
- To identify the current gaps in MDT working in Kurdistan

Agenda:

- Principles of Rehabilitation: the benefits of a holistic approach
- Multidisciplinary teams in rehabilitation: role of each healthcare professional: case study
- Group discussion: current approach to rehabilitation in Kurdistan and areas for improvement.

Dr. April Gamble, Mr. Fariq Kareem

Applying Modern Pain Science in Physiotherapy

April Gamble[*,], Fariq Kareem[*]**
*Wchan Organization for Victims of Human Rights Violations
**The American Center for Rehabilitation

Objectives:

Three decades of advancement in the science of the human pain experience has resulted in a significant change in the physiotherapy treatment approach to pain and pain-related disability. Yet, most physiotherapists have not had opportunities to develop the clinical skills to effectively treat persons with persistent pain, including the application of novel evidence-based physiotherapy treatments. Therefore, participants of this workshop will be introduced to the evidence-based modern pain science approach that is recognized as the international best practice standard. This workshop aims to mobilize the Kurdistan physiotherapy profession in the global pain revolution which involves a shift away from the biomedical model and use of passive treatments. Following the workshop, the participants will be able to: 1) Describe the biopsychosocial model as it relates to physiotherapy, 2) Describe key evidence-based principles of pain neurobiology, 3) Explore case examples of the application of modern pain science within the culture and context of Kurdistan, and 4) Explore novel physiotherapy treatment approaches rooted in the principles of modern pain science. The primary author will bring her doctorate of

physiotherapy background coupled with extensive clinical experience as a physiotherapist and physiotherapy trainer in Kurdistan. The co-authors' clinical presentations will reflect their vast experience developing knowledge and skills related to modern pain science and applying it with countless patients that experience persistent pain in a variety of settings in Kurdistan.

Agenda:

The plan for the workshop is: 1) Overview of the most current evidence-based foundational theory related to modern pain science in physiotherapy, 2) Interactive learning activity to strengthen understanding of theoretical concepts, 3) Presentation of a case study applying modern pain science with persons with persistent pain and psychological trauma in Kurdistan, and 4) Opportunity to experience a novel physiotherapy treatment techniques rooted in modern pain science.

Ms. Farah Mazin ALdweik, Ms. Walaa Awwad, Ms. Mei Lai Swan

Integrating Trauma-Informed Yoga Practices into Physiotherapy Interventions

Farah Mazin ALdweik*, Walaa Awwad*, Mei lai Swan**

*Center for Victim of Torture, Jordan

**Yoga for Human Kind, Australia

Objectives:

• Increase understanding of the effects of trauma and stress on the body • Provide an understanding of Trauma-Informed Care and its importance for all practicing physiotherapists • Define, and understand Trauma Informed Yoga and introduce its scientific evidence base • To provide understanding through a case study approach of how yoga can be integrated in to physiotherapy interventions • Participants gain appreciation of the barriers, challenges and solutions to integrating TIY in to physiotherapy practices • To allow participants to experience at least three basic yoga-based postures used in physiotherapy

Agenda:

The plan for this workshop is:

1. Overview of the effects of trauma and stress on the body,
2. Outline principles of trauma- informed care with practical examples within physiotherapy,
3. Overview of the current evidence based foundational theory related to Yoga and trauma,
4. Presentation of a case study outlining the experience of integrating trauma informed Yoga into physiotherapy interventions
5. Interactive learning activity to allow participants to physically experience basic yoga-based postures used in physiotherapy,
6. Discussion on the barriers, challenges and solutions to integrate TIY into PT interventions

This conference abstract book was prepared by:

Dr. Hedy Ahmed Hassan Mr. Lukman Qader Abdulrahman