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48th World Congress On

Microbiology

June 24-25, 2019
Moscow, Russia



SCIENTIFIC PROGRAM

DAY 1
Monday, 24th June, 2019

08:30-09:00 **Registrations**

09:00-09:30 **Introduction**

09:30-09:50 COFFEE BREAK

09:50-11:50 Meeting Hall 01 **KEYNOTE LECTURES**

11:50-13:10	MEETING HALL 01	MEETING HALL 02
	Talks On:	**Talks On:**
	Bacteriology	Virology
	Bacterial Pathogens and Associated Diseases	Viral Pathogens and Associated Diseases
	Mycology	Phycology
	Fungal Pathogens and Associated Diseases	Nematology & Protozoology

13:10-13:15 GROUP PHOTO

13:15-14:00 LUNCH BREAK

14:00-16:00	MEETING HALL 01	MEETING HALL 02
	Talks On:	**Talks On:**
	Medical Parasitology	Applied & Environmental Science
	Antimicrobial Agents & Resistance	Microbial Cytology, Microbial Physiology & Recombination DNA
	Clinical Infections & Vaccines	Microbial Ecology & Evolution
	Clinical & Public Health Microbiology	Molecular Microbiology

16:00-16:20 COFFEE BREAK

MEETING HALL 01 (16:20-17:00)	MEETING HALL 01 (17:00-18:00)
Young Researchers	Workshop

DAY 2
Tuesday, 25th June, 2019

09:00-10:30 Meeting Hall 01 — **KEYNOTE LECTURES**

10:30-10:50 COFFEE BREAK

10:50-12:50

MEETING HALL 01	MEETING HALL 02
Talks On:	**Talks On:**
Cellular Microbiology	Food Microbiology
Systems Microbiology	Soil Microbiology
Industrial Microbiology	Water Microbiology
Microbial Biotechnology and Future Bioindustries	Aquatic & Marine Microbiology

12:50-13:35 LUNCH BREAK

13:35-15:55

MEETING HALL 01	MEETING HALL 02
Talks On:	**Talks On:**
Veterinary Microbiology	Agriculture & Forest Microbiology
Plant Pathology & Microbiology	Profession of Microbiology

15:55-16:15 COFFEE BREAK

MEETING HALL 01 (16:15-17:00)	MEETING HALL 01 (17:00-18:00)
Poster Presentations	Workshop

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AGENDA

Abstract

Title: An efficient endoglucanase production by using endophytic fungus *Fusarium oxysporum* through optimized cellulosic waste solid state fermentation

Name: Surendra Sarsaiya
Affiliation: Zunyi Medical University, China

Organic cellulosic matters have the potential to become a sustainable source of fuels and chemicals by exploring the new endophytic fungal cellulase. Realizing this potential, an investigation was done to evaluate the potential species of cellulolytic endophytic fungi and utilized the optimum organic waste matters for the higher endoglucanase action via SSF (solid-state fermentation) for industrial application. Methodology & Theoretical Orientation.

Title: An efficient endoglucanase production by using endophytic fungus *Fusarium oxysporum* through optimized cellulosic waste solid state fermentation

Name: Gholamali Moghaddam
Affiliation: University of Tabriz, Iran

Probiotics are useful microorganisms that colonize in digestive system of the domestic animals and are able to affect improvement function and weight gain in animals through making microbial equilibrium in flora of intestine. In this study in order to determine the effects of Bioplus 2B (Bacillus subtilis, Bacillus licheniformis) and yogurt (Lactobacillus bulgaricus, Streptococcus thermophiles) on health, weight gain, blood metabolites and elements and fecal E.coli shedding in calves.

Title: A bacteriological study of lungs and mediastinum lymphatic nodes of sheep slaughtered in east Azarbayjan

Name: Gholamali Moghaddam
Affiliation: University of Tabriz, Iran

The infectious diseases are major importance in human and livestock animals. The most important objective is the continuous improvement of the efficiency of livestock production by the management of animal health. The objective of this study was to reveal the amount of infected lungs and mediastinum lymphatic nodes in sheep slaughtered.

SPEAKER SLOTS AVAILABLE

Title: Evaluation of selected microbiological parameters of fruit snacks

Name: Jadwiga Stankiewicz
Affiliation: Gdynia Maritime University, Poland

The changing pace of life, the way of spending free time, as well as searching by consumers for products with specific nutritional traits, forces food producers to introduce products that provide the expected nutritional value. The demand for low processed food, ready to eat, and at the same time safe in terms of microbiology is associated with the growing food awareness of consumers. Fruit snacks are part of this direction of the market for convenient products. The aim of the research was to evaluate selected microbiological features of fruit snacks available on the Tri-City market.

Title: Hepatitis B virus infection alters gut microbiota composition in mice

Name: Junzhong Wang
Affiliation: University of Science and Technology, China

Gut microbiota composition is known to be related to the progression of Hepatitis B virus (HBV)-related liver cirrhosis in humans, the outcome of HBV infection in mice, and HBV e-antigen seroconversion in nucleot(s)ide analogue-treated patients. The dynamic alteration of the gut microbiota following HBV infection was investigated in this study

Title: GENERATION OF ELECTRICITY BY METABOLIC ACTIVITY OF ELECTROGENIC BACTERIA

Name: Karina Paredes Páliz
Affiliation: Escuela Superior Politécnica de Chimborazo, Ecuador

Negative effects from the use of fossil fuels are the main reason to develop efficient low cost technologies that are friendly to the environment. Microorganisms, particularly electrogenic bacteria, degrade substrates releasing electrons and protons generating electrical energy. In this study, three models of microbial fuel cells were implemented and the generation of bioelectricity was compared during a period of 60 days.

SPEAKER SLOTS AVAILABLE

Title: Differential effects of Depot medroxyprogesterone acetate administration on vaginal microbiome in Hispanic White and Black women

Name: Liying Yang
Affiliation: New York University School of Medicine, USA

Statement of the Problem: The use of depot medroxyprogesterone acetate (DMPA), a 3-monthly injectable hormonal contraceptive, is associated with an increased risk of HIV acquisition possibly through alteration of the vaginal microbiome. The Lactobacillus deficiency and enrichment of VNAB may contribute to the increased risk of HIV acquisition in Black women. Future studies on the impact of racial differences on the risk of HIV acquisition will offer insights into developing effective strategies for HIV prevention.

Title: The effect of long-term fertilizer treatments on nitrogen cycle microorganisms

Name: Marina L. Sidorenko
Affiliation: Russia

Statement of the Problem: A feature of modern crop production is the intensive exploitation of agricultural land using mineral fertilizers. This often leads to negative consequences. Possible negative consequences can be corrected by tracking changes in the structure and number of different microbial groups. The purpose of this study is to assess the change in the microorganisms participating in the nitrogen cycle number and the soil nitrogen available due amount to the many years of fertilizer use.

Title: CONTROL MECHANISMS ABOUT RISK AND RISK RESOURCES IN THE FOOD MICROBIOLOGY LABORATORIES

Name: Nuray Gamze Yörük
Affiliation: Kocaeli Food Control Laboratory Directorate, Turkey

Risk is an event or event that may lead to an organization's achievement of its strategic objectives and objectives, and to prevent the performance of its core activities or to cause unexpected losses (1). According to this definition, it is important for food microbiology laboratories to determine the methods and principles for risk management by enabling the formation or formation of opportunities that can be improved by preventing and / or minimizing the possible disruptions in the laboratory and unit activities in order to reach the aims and objectives of the laboratory unit.

SPEAKER SLOTS AVAILABLE

Abstract

Title: Salmonella Detection in animal meat and food products

Name: R. Oyungerel
Affiliation: MNUMS , Mongolia

The such as bacteria Shigella, Escherichia coli, Campylobacter, Yersinia, Salmonella are the main cause of the bloody diarrhea, which is occurring in 20-30% among the bloody diarrhea in developing countries. In Ulaanbaatar of Mongolia, in 2016 from patients, who were hospitalized in NCCD with diagnosis food poisoning, were detected 1489 pathogens and 21,8 % of them was E.Coli, 62.3 % - Staphylococcus aureus, 7.8 % - Salmonella enteritis, 7.5% - Shigella Flexneri, respectively. The main goal of the study was to detect the Salmonella in animal meat and food products.

Title: Invasion factor variability as a basis for Listeria monocytogenes highly virulent strain development

Name Svetlana Ermolaeva
Affiliation Gamaleya Research Center of Epidemiology and Microbiology, Russia

The Gram-positive bacterium Listeria monocytogenes is a soil-borne human and animal pathogen that circulates in natural foci of infection. It could be transmitted to anthropogenic environment to establish foci of infection at farms and food industry plants. Most of listeriosis cases in humans are caused by a few clonal complexes. Meanwhile, majority of L. monocytogenes strains carry the same set of major virulence factors. We suggested that highly virulent strains carry specific variants of major virulence factors. Particularly, the invasion factors of the internalin family, InlA and InlB that provide crossing the intestinal barrier, could be better adapted in highly virulent strains.

Title: The microbial degradation of obsolete pesticides in burial soils of Kyrgyzstan

Name: Doolotkeldieva, T. D
Affiliation: Kyrgyz-Turkish Manas University, Kyrgyzstan

The main purpose of this research is to study the microbial structural complexes of pesticide-contaminated soils in dumping zones, and to search for and select microorganism-destructors with cytochrome P450 genes for pesticide degradation, the use of selected bacteria for the bioremediation of heavily polluted soils around the burials sites in model experiments.

SPEAKER SLOTS AVAILABLE

Title: Pathogens in the Meibomian Gland and Conjunctival Sac: Microbiome of Normal Subjects and Patients with Meibomian Gland Dysfunction

Name : Xiaodan Jiang
Affiliation: Peking University, Third Hosital, China

Statement of the Problem: Dry eye is an ocular disease characterized by ocular discomfort due to an abnormal quantity or quality of tear film, which causes pathological changes in the ocular surface. The prevalence of dry eye has increased in recent years, and bacteria isolated from the ocular surface were thought to be correlated to the severity of dry eye. This study aims to explore the composition of the ocular microbiome in normal subjects and patients with one major kind of dry eye, Meibomian gland dysfunction (MGD).

Title: Pathogens in the Meibomian Gland and Conjunctival Sac: A Study of Bacterial Flora of Patients with Aqueous Deficient Dry Eye

Name: Xuemin Li
Affiliation: Peking University, Third Hosital, China

Statement of the Problem: Dry eye is a type of disease with ocular discomfort and abnormal quantity or quality on tears, and further cause pathological changes in ocular surface. The prevalence of dry eye has increased in recent years, and bacteria isolated from the ocular surface were thought to be correlated to the severity of dry eye. This study aims to explore the composition of the ocular microbiome in normal subjects and patients with one major kind of dry eye, aqueous- deficient dry eye (ADDE).

Title: Periodontal pathogens are a risk factor of oral cavity squamous cell carcinoma, independent of tobacco and alcohol and human papillomavirus

Name: Zhiheng Pei
Affiliation: New York University School of Medicine and VA Medical Center, USA

Over the past decade, there has been a change in the epidemiology of oral cavity squamous cell cancer (OC-SCC). Many new cases of OC-SCC lack the recognized risk factors of smoking, alcohol and human papilloma virus. The aim of this study was to determine if the oral microbiome may be associated with OC-SCC in nonsmoking HPV negative patients.

SPEAKER SLOTS AVAILABLE

Abstract

Title: CRISPR/Cas-based virus resistance in cotton

Name: Zulqurnain Khan
Affiliation: MNS University of Agriculture, Pakistan.

Cotton leaf curl disease (CLCuD) is one of the major factors for low yield of cotton in Pakistan. Engineering resistance in cotton cultivars against CLCuD through RNA-directed Cas9 is a powerful tool to tackle the viral disease in cotton. We have targeted coding and non-coding regions of viral DNA individually with Cas9 and dCas9 and found promising potential target sites for viral interference. On basis of screening results of gRNAs tested in transient assay in N. benthamiana, we designed multiplex gRNA for targeting three most promising sites simultaneously with Cas9 and dCas9.

Title: The effect of the combinations of antibiotics and natural products on the antimicrobial effect for combating bacterial resistance

Name: Afaf S Eladl
Affiliation: Kyoto University, Japan

The steadily increasing in bacterial resistance to existing antimicrobial drugs is a serious problem, and therefore there is a dire need to search for new approaches of bacterial treatment. The use of antibiotics alone sometimes does not produce the effective inhibitory action. To overcome this problem, a combination of drugs often used. One approach to treat infectious diseases is the use of combination of antibiotics together or with plant extracts. Combination therapy is helpful and useful for patients with serious infections caused by drug resistant pathogens.

Title: Evaluation of the potency of some antibiotic formulations in the Egyptian market

Name: Afaf S Eladl
Affiliation: Kyoto University, Japan

Interest in searching and developing new antimicrobial agents to combat microbial resistance has been growing recently. Therefore, a greater attention has been paid to both screening and evaluation methods of antibiotics activity. The present study aimed to evaluate the potency of some antibiotics containing pharmaceutical products of some Egyptian market companies using microbiological assay based on agar diffusion method and using standard strains in order to determine their therapeutic efficacy and bioactivity.

SPEAKER SLOTS AVAILABLE

Title: Antifungal susceptibility and virulence on murine model of Aspergillus fumigatus environmental isolates from a public tertiary hospital in Metro Manila, Philippines

Name: Ferissa B. Ablola
Affiliation: College of Public Health University of the Philippines, Manila

This research served as a preliminary study to characterize the antifungal susceptibility of environmental isolates of Aspergillus fumigatus from a hospital facility against three antifungal agents. Moreover this study conducted an animal survival analysis to determine the virulence of these isolates on BALB/c mice. Lung tissues of infected mice were also subjected to histopathology. Etest result for antifungal susceptibility testing showed that two isolates were resistant (Non-Wild type) to amphotericin B (AF2-A and AF-3A); one isolate resistant to voriconazole (AF2-A) and an isolate that manifested non- susceptibility to caspofungin(AF2-A).

Title: PREPARATION OF BIO FERTILIZER WITH THE HELP OF MICROORGANISM FOR INSECTS FREE MICROORGANISM.

Name: Harsha Sharma, India

Biological control is a natural ecological phenomenon. Which can be successfully used in the management of pesticides, and it can be a balanced, sustainable and economical pest control tool. The use of micro-organisms for pesticides is called microbial control. This is a new aspect of biological control, in which the use of pesticides microbes is used for their control. By practically looking for microbial control of insects and looking after the natural enemies of pests, their number can be increased by utilizing them for control of pesticides, which is available by marking experts and accessible.

Title: Study of siderophore production from Enterobacter bugandensis R1 and effect of abiotic stress on it.

Name: Kargar Swati
Affiliation: Shree Ramkrishna Institute of Computer Education & Applied Sciences, India

Siderophores are compounds secreted under low iron stress, which act as specific ferric iron chelating. Siderophores have received much attention in recent years because of their potential roles and applications in various areas of environmental research. Siderophores function as biocontrols, biosensors, and bioremediation and chelation agents in addition to their important role in weathering soil minerals and enhancing plant growth agents. Present study aims at the screening and characterization of siderophore producing microorganisms from different sources.

SPEAKER SLOTS AVAILABLE

Title: Protoplast fusion of two *Trichoderma* strains resulted in xylanase production enhancement

Name: Zahra Papzan, Iran

Xylanase is one of the most important hemicellulases catalyzing the hydrolysis of 1,4-β-D-xylosidic linkages in xylan, a noteworthy hemicelluloses component of lignocellulosic biomass. Xylan is the second most abundant natural polysaccharide composed of β-xylopyranose residues, and its complete hydrolysis requires the action of several enzymes, including endo-1,4-β-xylanase. There are vast ranges of industrial applications for xylanases, including fermentation of biomass for the biofuel production, pulp and paper bleaching, improving digestibility in animal feed, juices processing in food industry and biopolishing of fabrics in textile industry.

Title: Alanine exerts immunomodulatory functions by promoting phagocytosis but limiting tissue injury

Name: Bo Peng
Affiliation: Sun Yat-sen University, China

Many infectious pathogens are susceptible to killing by antibiotics; however, mechanisms exist whereby susceptible pathogens as well as commensal bacteria can acquire resistance to antibiotics, especially after long-term, high-dose, or otherwise inappropriate exposure to one or more growth-inhibiting or cytotoxic drugs. This is the rational explanation for the recent surge in appearance of multidrug-resistant (MDR) bacterial strains, especially in the hospital environment, leading to increased human mortality. Therefore, new drugs and/or approaches are needed for treating such infections in the clinic.

Title: NaCl promotes antibiotic resistance by reducing redox states in *Vibrio alginolyticus*

Name: Hui Li
Affiliation: Sun Yat-sen University, China

The development of antibiotic resistance in Vibrio alginolyticus represents a threat to human health and fish farming. Environmental NaCl regulation of bacterial physiology is well documented, but whether the regulation contributes to antibiotic resistance remains unknown. To explore this, we compared minimum inhibitory concentration (MIC) of V. alginolyticus cultured in different media with 0.5% to 10% NaCl, and found that the MIC increased as the NaCl concentration increased, especially for aminoglycoside antibiotics. Consistent with this finding, internal NaCl also increased, while intracellular gentamicin level decreased.

SPEAKER SLOTS AVAILABLE

Title: Chitosan and silver nanoparticles: promising antitoxoplasma agents

Name: Gaafar M.R
Affiliation: Alexandria University, Egypt

Toxoplasmosis is a worldwide infection caused by obligate intracellular protozoan parasite which is Toxoplasma gondii. Chitosan and silver nanoparticles were synthesized to be evaluated singly or combined for their antitoxoplasma effects as prophylaxis and as treatment in the experimental animals. Results were assessed through studying the parasite density, studying the ultrastructural parasite changes and estimation of serum gamma interferon. Weight of tissue silver was assessed in different organs. Results showed that silver nanoparticles used singly or combined with chitosan have promising antitoxoplasma potentials.

Title: Extra-long mitochondria of xylotrophic fungi: structure and functions

Name: Olga V. Kamzolkina
Affiliation: Lomonosov MSU, Russia

Mitochondria are the most important organelles of eukaryotic cells, performing various functions in the cell, the main one of which is respiration. Mitochondria (including fungal mitochondria) undergo permanent fragmentation to small organelles and reverse assembly into larger filamentous structures. In the fungi described the extreme form of mitochondrial assembly - the mitochondrial reticulum - a continuous network of filamentous mitochondria distributed throughout the cell. We found that some species of xylotrophic basidiomycetes form extra-long mitochondria. The purpose of this study is to study of extra-long mitochondria of xylotrophs.

Title: Exogenous glutamate plus antibiotics kills multidrug-resistant bacteria through a novel pathway that controls the TCA cycle

Name: Xuanxian Peng
Affiliation: Sun Yat-sen University, China

The emergence and ongoing spread of multidrug-resistant bacteria puts humans and other species at risk of potentially lethal infections. Thus, novel antibiotics or alternative approaches are needed to kill the drug-resistant bacteria. Here, the mechanism by which multidrug-resistant Edwardsiella tarda evades killing by the traditional antibiotic kanamycin is explored using a reprogramming metabolomics-based approach. The results demonstrate that exogenous glutamate restores the ability of kanamycin to kill E. tarda in vitro and in vivo.

SPEAKER SLOTS AVAILABLE

Glimpses of Microbiology Conferences

















Moscow Attractions

