

A nighttime photograph of a city street in Sarajevo. Two dark cars are in the foreground, their taillights glowing. A tram is blurred in the background, moving from left to right. Streetlights and a triangular yield sign are visible on the right side of the road. The scene is illuminated by the warm lights of the cars and streetlights against the dark night sky.

**ICABS 2019**

**SARAJEVO**

5TH

**International  
Congress on Applied  
Biological Sciences**

November 08-12 | Sarajevo

**Book of Abstracts**

[www.icabs.gen.tr](http://www.icabs.gen.tr)

## ICABS 2019

It is my honor to announce successful completion of 5th International Congress on Applied Biological Sciences (ICABS) which was organized in Sarajevo, Bosnia and Herzegovina on November 08-12, 2019.

The fast advancements that we are witnessing in biological sciences are remarkable, which has a positive impact not only on science and technology but also on economic growth and development.

Sarajevo is the capital and largest city of Bosnia and Herzegovina, with a population of 275,524 in its administrative limits. The Sarajevo metropolitan area, including Sarajevo Canton, East Sarajevo and nearby municipalities, is home to 555,210 inhabitants. Nestled within the greater Sarajevo valley of Bosnia, it is surrounded by the Dinaric Alps and situated along the Miljacka River in the heart of the Balkans.

Congress was provided the opportunity to share knowledge and experience in various fields of applied biological sciences while connecting scientists from different disciplines and geographies.

Sincerely,

Assoc. Prof. Dr. Aslı Özkök, Hacettepe University

Chair of the Congress

Prof. Dr. Farhat Jabeen, GC University Faisalabad, Pakistan

President of Organizing Committee

## **INTERNATIONAL SCIENTIFIC COMMITTEE**

- Prof Dr. Erhan MUTLU, Akdeniz University, Turkey
- Prof. Dr. Farhat Jabeen, GC University Faisalabad, Pakistan
- Prof. Dr. Serra Hepaksoy, Ege University, Turkey
- Prof. Dr. Süleyman KOZAT, Yuzuncu Yıl University, VAN
- Prof.Dr Antonis Kokkinakis , Aristotle University , Thessaloniki, Greece
- Prof.Dr Dritan Topi Faculty of Natural Sciences , University of Tirana, Albania
- Prof.Dr Ilija Brcesi , University of Belgrade, Serbia
- Prof.Dr Ilirjan Malollari , Academy of Science of Albania, University of Tirana, Albania
- Prof.Dr Kemajl Kurteshi, Department of biology, University of Pristina, Kosovo
- Prof.Dr Suzana Golemi, Dean of Natural Sciences Faculty ,University of Shkodra "Luigj Gurakuqi", Albania
- Prof.Noureddine DJEBLI, Mostaganem University , Algeria
- Prof. Dr. Vladimir Pesic, University of Montenegro, Montenegro
- Assoc. Prof. Dr. Attila KARSÍ, Mississippi State University, USA
- Assoc. Prof. Dr. Filiz VARDAR, Marmara University, Turkey
- Assoc. Prof. Dr. Zahid Iqbal, Isra University, Islamabad-Pakistan
- Assoc. Prof. Dr. Eltjon Halimi , Department of Biology, University of Tirana, Albania
- Assoc.Prof Hesat Aliu , Tetova University , North Macedonia
- Dr. Majlinda SANA, The University of Dures "Aleksander Moisiu", Albania
- Assoc.Prof Kimete Lluga, Department of biology, University of Pristina, Kosovo

## **ORGANISING COMMITTEE**

### **Conference Chairman**

- Prof. Dr. Farhat Jabeen, GC University Faisalabad, Pakistan

### **Chair of Organizing Committee**

- Assoc Prof Dr Aslı OZKOK, Hacettepe University, Turkey

### **Members of Organizing Committee**

- Prof. Dr. Farhat Jabeen, GC University Faisalabad, Pakistan
- Dr.Gafur Xhabiri, University of Tetova, Macedonia
- Dr.Gezim Bara, University of Tirana, Albania
- Dr.Lorina Lici Polytechnic University, Albania
- Dr.Merije Elezi, University of Tetova, Macedonia

## **ANTIFUNGAL AND ANTI-BIOFILM ACTIVITY OF NEW PROPANE SULFONYL HYDRAZONE AGAINST CANDIDA ISOLATES**

**MERVE AYDIN<sup>1</sup>, ALI OZTURK<sup>2</sup>, UMMUHAN OZDEMIR OZMEN<sup>3</sup>**

<sup>1</sup>DEPARTMENT OF MEDICAL MICROBIOLOGY, FACULTY OF MEDICINE, KTO KARATAY UNIVERSITY, KONYA, TURKEY

<sup>2</sup>DEPARTMENT OF MEDICAL MICROBIOLOGY, FACULTY OF MEDICINE, NIĞDE ÖMER HALISDEMİR UNIVERSITY, NIĞDE, TURKEY

<sup>3</sup>DEPARTMENT OF CHEMISTRY, FACULTY OF SCIENCE, GAZI UNIVERSITY, ANKARA, TURKEY

### **Abstract**

Candidiasis is the most frequently encountered fungal disease that ranges from mild mucosal infections to serious candidaemia and disseminated candidiasis. There are only limited classes of antifungal agents available for physicians to combat Candida infections. In addition, biofilm cells display phenotypic traits that resulting in enhanced resistance to antifungal drugs. Therefore, the limited option to combat fungal threat has raised the interest in seeking alternative antifungal compounds. The aim of this study was to investigate the antifungal and anti-biofilm activity of the new Sulfonyl hydrazones compound Anaf-Psh (3-hydroxynaphthalene-2ethylidenepropane sulfonylhydrazone), derived from sulfonamides. The Candida species evaluated in this study included the five reference strains and thirty-five clinical isolates belonging to a collection of fungal strains previously established at the Gazi University Medical Mycology Laboratory. Identification was performed by conventional methods and by biochemical characterization using the API ID32C® system (Biomerieux) and was confirmed by the sequencing. The antifungal activity of Anaf-Psh was determined using a broth microdilution method according to the European Committee on Antimicrobial Susceptibility Testing (EUCAST) standards. The compound concentrations varied between 0.5–256 µg/ml. The anti-biofilm effect of the synthesized compound was evaluated in 96-well polystyrene flat-bottom microplates. The compound was found to be effective against all tested Candida strains with MIC ranging from 8-64 µg/ml and also inhibit biofilm formation in tested isolates. As a conclusion, it's in vitro antifungal and anti-biofilm properties, this new compound Anaf-Psh is a promising new agent for the control and treatment of Candida infections.

**Keywords:** Anti-Biofilm Activity, Antifungal Activity, Candida, Sulfonyl Hydrazones

*\*This research received no specific Grant from any funding agency in the public, commercial, or not-for-profit sectors*