

Commemoration on
World Pharmacist Day
Theme: *“Transforming Global Health”*
25th September 2020

Indian Pharmaceutical Association-Nilgiris Local Branch (IPA-NLB)

RESEARCH PROJECTS – VIRTUAL CONTEST 2020
(12th and 13th October 2020)

Organising Committee

Patron

Dr. S.P. Dhanabal, Principal, JSS College of Pharmacy, Ooty

Coordinators

Dr. Vadivelan R, President, IPA-NLB
Dr. Jawahar N, Vice-President, IPA-NLB
Dr. Ganesh GNK, Hon. Secretary, IPA-NLB
Dr. Jubie S, Joint Secretary, IPA-NLB
Dr. Kalirajan R, Treasurer, IPA-NLB

Co-Coordinators

Dr. Rajeshkumar R, EC Member, IPA-NLB
Dr. Babu B, EC Member, IPA-NLB
Dr. Gowramma B, EC Member, IPA-NLB

Objectives of the Contest

- The contest makes students to present their projects in a creative and abstract way for better understanding.
- To demonstrate poise and mental agility before peers.
- To develop skills in effective communication for dissemination of research information.
- To gain experience in creative presentation of scientific work.
- To display their scientific contributions with visual clarity.
- To be recognized and receive appreciation at a national level.

Instructions to participants

1. The individual (Ph.D/M.Pharm/Pharm D) or group projects (B.Pharm) will be considered for the competition.
2. Abstract containing 250 words should be submitted to scientific committee in a given format (Find the model format at end)
3. Students have to mention their thrust area of project work in the abstract.
4. Time allotted for presentation is 10 min plus 2 min for discussion.
5. Participants are expected to submit their presentation before beginning of the session.
6. Students will not be given second chance for their presentation once if they missed the allocated day, time and in case of any network issue IPA Nilgiris branch won't take any responsibility.
7. Students should strict to the timings during their presentation. If group of students are participating in a project, everyone should be involved in a presentation.
8. Virtual presentation will be conducted through google meet (Link will be sent through mail).
9. Three winners from each degree will be selected, entire selection is solely by the selection committee

Thrust Areas

1. Medicinal Chemistry
2. Pharmacognosy, Phytochemistry & Herbal formulations
3. Pharmacology and Toxicology, Clinical Research & Biopharmaceutics
4. Pharmaceutical Analysis, Quality Control & Assurance
5. Bioinformatics, Biotechnology, Microbiology & Fermentation
6. Hospital, Community & Clinical Pharmacy
7. Case Studies
8. Pharmaceutical Education, Practice Pharmacy
9. Drug Regulatory Affairs and Pharmacovigilance

[Click here to register and submit your abstract](#)

MODEL ABSTRACT

Thrust area of work: Bioinformatics, Biotechnology, Microbiology & Fermentation

ATTENUATION OF QUORUM SENSING AND BIOFILM FORMATION OF CLINICALLY ISOLATED PATHOGENS USING SELECTED MEDICINAL PLANTS

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Abstract

Biofilm formation is a major virulence factor contributing to the chronicity of infections. To date few studies have evaluated biofilm formation in infecting patients including both Gram-positive and Gram-negative multidrug-resistant species. In our study, *Ionidium suffruticosum*, *lawsonia alba*, and *gymnema sylvestre* were extracted using various solvents from non-polar to polar by Soxhlation. Various antibiofilm assay was carried out for all the extracts. In MIC, WLLA showed potent activity against MRSA (31.25 ± 3.14 $\mu\text{g/ml}$) followed by *Escherichia coli* and *Pseudomonas aeruginosa* with MIC value of, 62.5 ± 2.79 $\mu\text{g/ml}$ and 62.5 ± 0.13 $\mu\text{g/ml}$ respectively. Inhibition of biofilm formation was conducted on MFIS, WLLA and MLGS. All the three extracts showed at least 50% reduction in cell attachment on both tested bacteria by using crystal violet assay. WLLA and MLGS induced inhibition of biofilm formation against *Escherichia coli*, *Pseudomonas aeruginosa* and MRSA by up to 91% and 88.5%, 94% respectively. Agar diffusion assay was carried out for all the 15 extracts. Among the extracts tested for agar diffusion assay, WLLA showed potent activity against with highest zone of inhibition of 27 ± 3.14 mm, 26 ± 0.11 mm and 25 ± 1.10 mm against *Escherichia coli*, *Pseudomonas aeruginosa* and MRSA respectively. MLGS showed potent activity against *Escherichia coli*, *Pseudomonas aeruginosa* and MRSA with zone of inhibition of 24 ± 0.91 mm, 23 ± 0.57 mm, 21 ± 0.90 mm respectively. Different phytoconstituents if isolated and tested from these two extracts (WLLA and ELGS) may help in establishing antibiofilm and quorum sensing potency.

Keywords: Quorum sensing, Biofilm, Pathogens, and Medicinal plants

(Font: Times New Roman, Title-Capital, 12, Bold. Affiliation: 12, italics. Abstract/Keywords:12, Not Bold)