



ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>

Reminder for Presentation Materials of International Symposium of 2nd JESSD

5 messages

International Symposium of JESSD <symposium.jessd@ui.ac.id>
To: Andi Setiawan <andi.setiawan@fmipa.unila.ac.id>

Fri, Sep 17, 2021 at 6:19 PM

Dear Andi Setiawan

Department of Chemistry, Faculty of Mathematic and Natural Science, Bandar Lampung, 35141, Lampung Indonesia

I would like to remind you to submit the presentation materials for your manuscript Screening Antibacterial and Anti-Biofilm Activities of Sponge-Derived Actinomycetes against Clinical Isolates of *Staphylococcus aureus* with Manuscript ID JESSD-160 which consist of:

1. Presentation video, Make sure the video length doesn't exceed 9 minutes (2 minutes for opening-closing and 7 minutes for main material). please check these guidelines <https://symposiumjessd.ui.ac.id/guideline-virtual-presentations/>. Also, an example video presentation from one of speaker here: https://drive.google.com/file/d/18_ApcENQYhPY7XIS0noZNFTk3DiCo-M3/view
2. Name of the author who will attend the virtual symposium

Please submit the materials immediately, it will help our team to proceed with your paper. Please confirm us when you will be able to submit the materials by replying to this email, I will really appreciate it. Have a nice day!

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Sincerely,

Herdis Herdiansyah

2nd JESSD Symposium Chair

School of Environmental Science, Universitas Indonesia

scholarhub.ui.ac.id/jessd | <https://symposiumjessd.ui.ac.id/>**ANDI SETIAWAN** <andi.setiawan@fmipa.unila.ac.id>
To: International Symposium of JESSD <symposium.jessd@ui.ac.id>

Fri, Sep 17, 2021 at 10:47 PM

Dear Herdis Herdiansyah,

I would like to submit a manuscript ID JESSD-160 " Screening Antibacterial and Anti-Biofilm Activities of Sponge-Derived Actinomycetes against Clinical Isolates of *Staphylococcus aureus* " with the presentation Video.

Tya Gita Putri Utami is the author who will attend the virtual symposium

Best regards

Andi Setiawan

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|---|
| Articel TYA GITA JESSD 160 (IOP).docx |
| Format-TYA GITA Revision-JESSD 160 (IOP).docx |
| Presentation Video Tya Gita Putri Utami JESSD16... |

[Quoted text hidden]

International Symposium JESSD <symposium.jessd@ui.ac.id>
To: ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>

Sat, Sep 18, 2021 at 7:59 AM

Dear Andi Setiawan

We have received your revised manuscript and video presentation. Due to page changes, we send you the revised invoice. Please fulfill the payment before September 18th, 2021. Thank you

[Quoted text hidden]

 **Invoice bank transfer-JESSD 160 Rev.pdf**
64K

ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>
To: International Symposium JESSD <symposium.jessd@ui.ac.id>

Sun, Sep 19, 2021 at 4:41 PM

Dear Herdis Herdiansyah,

I attach proof of payment for registration, publication, proofread fees for paper JESSD 160. on behalf of Tya Gita Putri Utami

Best regards,
Andi Setiawan
[Quoted text hidden]

 **Registration, Publication, and Proofread fees for paper JESSD 160.pdf**
126K

International Symposium JESSD <symposium.jessd@ui.ac.id>
To: ANDI SETIAWAN <andi.setiawan@fmipa.unila.ac.id>

Sun, Sep 19, 2021 at 5:32 PM

Dear Andi Setiawan

We have received your payment proof. Thank you, have a great day!
[Quoted text hidden]

Screening Antibacterial and Anti-Biofilm Activities of Sponge-Derived Actinomycetes against Clinical Isolates of *Staphylococcus aureus*

T G P Utami, N L G R Juliasih, and A Setiawan*

Department of Chemistry, Faculty of Mathematic and Natural Science, Bandar Lampung, 35141, Lampung Indonesia, tya.utami@students.unila.ac.id; niluhratna.juliasih@fmipa.unila.ac.id; *andi.setiawan@fmipa.unila.ac.id,
ORCID ID: <https://orcid.org/0000-0002-0731-6417>

Abstract. This study aimed to screen the activity of methanol extract of sponge-derived actinomycetes as an anti-biofilm and antibacterial agent to *Staphylococcus aureus*. Nine actinomycetes isolates were selected from the UPT LTSIT deposit. *S. aureus* was obtained from the skin of patients at Abdul Moeloek General Hospital. An antibiotic susceptibility test was performed by the disk diffusion method. Biofilm formation of *S. aureus* was tested using the crystal violet method. The viability of pathogenic bacteria was measured using the indicator resazurin. The results of the biofilm formation test *in vitro* revealed that the organic extracts 33A1T2, 33A2T3, 21A1T11, and 38A1T12 inhibited bacterial growth at 0.5 mg/mL. Meanwhile, 50A2T9, 21A1T11, and 38A1T12 significantly inhibited the formation of staphylococcal biofilm on polystyrene at a concentration of 0.25 mg/mL. This information is very important as a basis for further understanding of the mechanism of action of antibiofilm agents.

1. Introduction

Biofilms are communities of microorganisms that are attached to a surface and play a significant role in the persistence of bacterial infections. Bacteria within a biofilm are several orders of magnitude more resistant to antibiotics, compared with planktonic bacteria. Thus far, no drugs are in clinical use that specifically targets bacterial biofilms. This is probably because until recently the molecular details of biofilm formation were poorly understood. Therefore, there is an urgent need for strategies that can successfully and safely prevent as well as those which can treat infections where biofilms are implicated. The strategies studied can be divided into four major categories; prevention of biofilm formation, weakening of the biofilm, disruption or dispersal of the biofilm, and killing of bacteria particularly the subpopulation which persists [1].

Until now, natural products are still a potential source of anti-biofilm agents. Recently, several antibiofilm agents have been successfully isolated from sponges. *Psammocinia* sp. and *Hyattella* sp. which shows that it has potential as an antimicrobial and antibiofilm [2]. However, excessive use of sponges to obtain bioactive compounds can cause damage to coral reefs and can harm the ecological system of marine life. The relatively slow growth of sponges causes limited availability of bioactive compounds, this is a challenge for researchers to find new sources. Marine actinomycetes are a new alternative source to obtain antibiofilm compounds. The extreme and dynamic conditions offered by Indonesia's tropical waters are potential reasons that are often associated with the production of