PROFILING BAKTERI PATOGEN LABORATORIUM MIKROBIOLOGI TINGKAT UNIVERSITAS DI WILAYAH JAWA TIMUR

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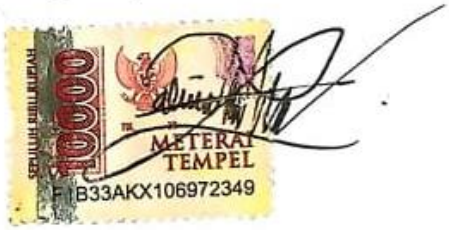

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ABSTRAK
PROFILING BAKTERI PATOGEN LABORATORIUM MIKROBIOLOGI TINGKAT UNIVERSITAS DI WILAYAH JAWA TIMUR

Manusia menghabiskan 90% hidupnya dalam ruang, kontaminasi udara dalam ruang berpotensi 1000 kali lipat lebih cepat mencapai paru-paru, hingga berdampak pada meninggalnya 2.8 juta (dari 3 juta) orang tiap tahunnya. Salah satu faktor kualitas udara dalam ruang yang baik ditentukan oleh mikroorganisme di udara. Mikroorganisme sebagai konstituen kecil yang tidak diinginkan dapat menjadi kontaminan udara hingga sebagai patogen. Agar mengetahui potensi patogen oleh mikroorganisme, khususnya bakteri dalam laboratorium, identifikasi dapat dilakukan dengan tahap makroskopis, mikroskopis, dan molekular. Identifikasi makroskopis memperlihatkan bahwa ditemukan 301 koloni dari pengamatan makroskopis dan dipilih 17 koloni yang mendominasi dari masing-masing laboratorium, dengan rata-rata suhu saat pengambilan sampel adalah 27.1℃ dan rata-rata kelembaban saat pengambilan sampel adalah 56.37%. Dari hasil uji mikroskopis ditemukan adanya 13 koloni bakteri Gram-positif dan 4 koloni bakteri Gram-negatif. Hasil uji molekular ditemukan bahwa laboratorium mikrobiologi universitas A didominasi oleh bakteri *Staphylococcus cohnii*, *Staphylococcus sciuri*, *Bacillus atrophaeus*, *Pseudomonas stutzeri*, dan *Bacillus velezensis*. Laboratorium mikrobiologi universitas B menunjukkan adanya dominasi bakteri *Staphylococcus cohnii*. Sedangkan, laboratorium mikrobiologi universitas C menunjukkan adanya dominasi dari *Janibacter indicus*. Laboratorium mikrobiologi universitas D dan universitas E menunjukkan adanya bakteri *Pseudomonas stutzeri*. Bakteri *Bacillus safensis* dan *Kocuria rhizophila* ditemukan mendominasi di laboratorium mikrobiologi universitas F. Laboratorium mikrobiologi universitas G menunjukkan bakteri-bakteri *Staphylococcus warneri*. Laboratorium mikrobiologi universitas H menunjukkan dominasi oleh bakteri *Staphylococcus cohnii*, *Staphylococcus capitis,* dan *Bacillus velezensis.*

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Kata kunci: Bakteri, Kontaminasi Udara, Makroskopis, Mikroskopis, Molekular

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ABSTRACT
PROFILING OF PATHOGEN BACTERIA
MICROBIOLOGY LABORATORY UNIVERSITY
IN THE EAST JAVA REGION

Humans spend 90% of their lives indoors, indoor air contamination has the potential to reach the lungs 1000 times faster, resulting in the death of 2.8 million (out of 3 million) people each year. One of the factors of good indoor air quality is determined by the microorganisms in the air. Microorganisms as small, unwanted constituents can become air contaminants or even pathogens. Identification is carried out in macroscopic, microscopic, and molecular methods to assess potential pathogens by microorganisms, especially bacteria in the laboratory. Macroscopic identification showed that 301 colonies were found from macroscopic observations and 17 dominant colonies were selected from each laboratory, with the average temperature when sampling being 27.1°C and the average humidity when sampling being 56.37%. The results of the microscopic test found that there were 13 colonies of Gram-positive bacteria and 4 colonies of Gram-negative bacteria. The results of molecular tests found that the microbiology laboratory at University A was dominated by *Staphylococcus cohnii, Staphylococcus sciuri, Bacillus atrophaeus, Pseudomonas stutzeri,* and *Bacillus velezensis*. University B's microbiology laboratory showed the dominance of *Staphylococcus cohnii*. Meanwhile, the microbiology laboratory at University C showed the supremacy of *Janibacter indicus*. The microbiology laboratories at University D and University E showed the presence of *Pseudomonas stutzeri*. The *Bacillus safensis* and *Kocuria rhizophila* were found to dominate in the microbiology laboratory of university F. The microbiology laboratory of University G showed *Staphylococcus warneri*. The microbiology laboratory at H University showed dominance by *Staphylococcus cohnii, Staphylococcus capitis,* and *Bacillus velezensis*.

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Key words: Bacteria, Air contamination, Macroscopic, Microscopic, Molecular

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