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*dr. R Lia Kusumawati, M.Biomed, Sp.MK(K), Ph.D adalah seorang dokter spesialis Mikrobiologi Klinik-Konsultan dan Staf Pengajar di Departemen Mikrobiologi Fakultas Kedokteran Universitas Sumatera Utara dengan jabatan fungsional Lektor Kepala, menjabat sebagai Ketua Komite Pencehahan dan Pengendalian Infeksi (PPI) di RSP. Prof. dr. Chairuddin Panusunan Lubis Universitas Sumatera Utara dan Penanggungjawab Laboratorium PCR-WGS Fakultas Kedokteran Universitas Sumatera Utara. Pendidikan Sarjana (S-1) dan Profesi Kedokteran ditempuh di Fakultas Kedokteran Universitas Sumatera Utara, Pendidikan Master (S-2) Ilmu Biomedik di Fakultas Kedokteran Universitas Indonesia dan Pendidikan Doktor (S-3) Epidemiology Medicine di Faculty of Medicine Prince of Songkla University Thailand.*

## Publications

2025

Jurnal internasional bereputasi

### **Molecular Detection of Mycobacterium tuberculosis and Nontuberculous Mycobacteria with Drug Resistance Profiling Using Line Probe Assay in Clinical Samples from Suspected Tuberculosis Patients in North Sumatra, Indonesia**

R LIA KUSUMAWATI , INDAH NUR LESTARI , DELYUZAR , Mirzan Hasibuan

2025

Jurnal internasional bereputasi

### **Increasing Blood Culture Positivity for Streptococcus pneumoniae Using Tryptic Soy Sheep Blood Agar with Gentamicin (TSSBA-G) in Suspected Bacteremia and Pneumonia at Universitas Sumatera Utara Hospital, Indonesia**

Mirzan Hasibuan , R LIA KUSUMAWATI

2025

Tulisan ilmiah

### **PERAN RSP PROF DR CHAIRUDDIN P LUBIS USU DALAM PELAYANAN TIDAK BERBAYAR DIAGNOSIS LABORATORIUM PCR-TBC DI KOTA MEDAN**

GEMA NAZRI YANNI , Mirzan Hasibuan , R LIA KUSUMAWATI

2025

Jurnal internasional bereputasi

### **Rifaximin resistance in Clostridioides difficile is associated with specific rpoB alleles and multilocus sequence typing (MLST) clades**

R LIA KUSUMAWATI

2025

Jurnal internasional bereputasi

### **Detection of Burkholderia pseudomallei in Suspected Melioidosis at Universitas Sumatera Utara (USU) Hospital, North Sumatra, Indonesia**

R LIA KUSUMAWATI , Mirzan Hasibuan

2025

Jurnal nasional terakreditasi

### **Comparison of GeneXpert and line probe assay for the detection of Mycobacterium tuberculosis in direct sputum samples**

2024

Jurnal internasional bereputasi

## **Coleus amboinicus Lour. Leaf Extract Has No Effects on the Biochemical Markers but Improves the Liver Histopathological Scores of Septic Rat Model**

MUTIARA INDAH SARI , R LIA KUSUMAWATI , YUNITA SARI PANE , SUFITNI

2024

Jurnal internasional bereputasi

## **Coleus amboinicus Lour. Leaf Extract Has No Effects on the Biochemical Markers but Improves the Liver Histopathological Scores of Septic Rat Model**

R LIA KUSUMAWATI , MUTIARA INDAH SARI , SUFITNI , YUNITA SARI PANE

2024

Jurnal internasional bereputasi

## **Comparison of RT-PCR cycle threshold values between individual and pooled SARS-CoV-2 infected nasopharyngeal swab specimens**

INKE NADIA DINIYANTI LUBIS , ARIDAMURIANY DWIPUTRI LUBIS , R LIA KUSUMAWATI , Toh D. Yuan

2024

Jurnal nasional terakreditasi

## **The Association of Age, Parity, and History of Cesarean Section with the Occurrence of Placenta Accreta Spectrum (Pas) at H. Adam Malik Hospital in Medan 2020-2022**

R LIA KUSUMAWATI , RINI SAVITRI DAULAY , HOTMA P PAR PASARIBU

2024

Jurnal internasional bereputasi

## **Prevalence of Panton-Valentine leucocidin (pvl) and exfoliative toxin A (eta) gene within methicillin resistant and susceptible Staphylococcus aureus in an urban tertiary hospital: A molecular epidemiology pilot study**

R LIA KUSUMAWATI , Mirzan Hasibuan , Lavarina Windah , SRI AMELIA

2024

Jurnal internasional bereputasi

## **Prevalence of Panton-Valentine leucocidin (pvl) and exfoliative toxin A (eta) gene within methicillin resistant and sensitive Staphylococcus aureus in an urban tertiary ...**

R LIA KUSUMAWATI

2024

Jurnal nasional terakreditasi

## **UJI SENSITIVITAS ANTIBIOTIKA TERHADAP BAKTERI PENYEBAB INFEKSI PADA LUKA PASCA OPERASI**

Suharsih , Mirzan Hasibuan , R LIA KUSUMAWATI

2023

Jurnal internasional bereputasi

## **Coleus Amboinicus Lour. Leaf Extract as an Antioxidant in Sepsis**

MUTIARA INDAH SARI , R LIA KUSUMAWATI , YUNITA SARI PANE , SUFITNI

2023

Jurnal internasional bereputasi

## **Whole-Genome Sequence Analysis of Carbapenem Resistant Acinetobacter baumannii isolated from Medan, North Sumatera, Indonesia**

R LIA KUSUMAWATI

2023

Jurnal internasional bereputasi

## **Diversity of Spa gene between methicillin-resistant and methicillin-sensitive Staphylococcus aureus bacteria in a tertiary referral hospital, Indonesia**

R LIA KUSUMAWATI , SRI AMELIA

2023

Jurnal internasional bereputasi

## **Diversity of Spa gene between methicillin-resistant and methicillin-sensitive Staphylococcus aureus bacteria in a tertiary referral hospital, Indonesia**

R LIA KUSUMAWATI , Lavarina Winda , SRI AMELIA

2023

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## **Prevalence of Panton-Valentine leucocidin (pvl) and exfoliative toxin A (eta) gene within methicillin resistant and sensitive Staphylococcus aureus in an urban tertiary referral hospital: A molecular epidemiology pilot study**

R LIA KUSUMAWATI , Lavarina Winda , SRI AMELIA

2023

Jurnal internasional bereputasi

## **SARS-CoV-2 lineages circulating during the first wave of the pandemic in North Sumatra, Indonesia**

RAMADHAN BESTARI , MARIA LUCIA INGE LUSIDA , Prof. Kazufumi Shimizu , R LIA KUSUMAWATI , M. Ichwan , INKE NADIA DINIYANTI LUBIS

2023

Jurnal nasional terakreditasi

## **Detection of SARS-CoV-2 Post COVID-19 Vaccination in Health Workers in the COVID-19 Isolation Room**

JELITA SIREGAR , R LIA KUSUMAWATI , Mirzan Hasibuan

2023

Jurnal internasional bereputasi

## **Sensitivity of nasopharyngeal swab and saliva specimens in the detection of SARS-CoV-2 virus among boarding school girls**

RINI SAVITRI DAULAY , BADAI BUANA NASUTION , R LIA KUSUMAWATI , INKE NADIA DINIYANTI LUBIS

2023

Jurnal internasional bereputasi

## **Use of saliva as an alternative diagnostic method for diagnosis of COVID-19**

RAMADHAN BESTARI , INKE NADIA DINIYANTI LUBIS , JELITA SIREGAR , M. Ichwan , R LIA KUSUMAWATI

2023

Jurnal internasional bereputasi

## **Use of saliva as an alternative diagnostic method for diagnosis of COVID-19**

R LIA KUSUMAWATI , JELITA SIREGAR , M. Ichwan , INKE NADIA DINIYANTI LUBIS

2023

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## **A comparative pilot study on Gram-negative bacteria contaminating the hands of children living in urban and rural areas of Indonesia versus Germany-A suitable monitoring&#230;**

R LIA KUSUMAWATI

2023

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## **A comparative pilot study on Gram-negative bacteria contaminating the hands of children living in urban and rural areas of Indonesia versus Germany&#230;A suitable monitoring&#230;**

R LIA KUSUMAWATI

2023

Jurnal internasional bereputasi

## **The trend of paediatric cases during the first year of the COVID-19 pandemic in North Sumatra, Indonesia**

R LIA KUSUMAWATI , M. Ichwan , INKE NADIA DINIYANTI LUBIS

2023

Jurnal internasional bereputasi

## **The trend of paediatric cases during the first year of the COVID-19 pandemic in North Sumatra, Indonesia**

RAMADHAN BESTARI , R LIA KUSUMAWATI , M. Ichwan , INKE NADIA DINIYANTI LUBIS

2023  
Jurnal internasional bereputasi

## **Missing Cases of Bacteriologically Confirmed TB/DR-TB from the National Treatment Registers in West and North Sumatra Provinces, Indonesia**

R LIA KUSUMAWATI

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2023  
Jurnal internasional bereputasi

## **Performance of Xpert MTB/RIF and sputum microscopy compared to sputum culture for diagnosis of tuberculosis in seven hospitals in Indonesia**

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2022  
Prosiding seminar internasional

## **Phenotypic and molecular detection of (CTX)-C-BLA-M gene extended-spectrum beta-lactamases in escherichia coli and klebsiella pneumoniae of north sumatera isolates**

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2022  
Prosiding seminar internasional

## **Detection of meca gene from methicillin resistant staphylococcus aureus isolates of north sumatera**

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2022  
Jurnal internasional bereputasi

## **Proteotyping of Clostridioides difficile as Alternate Typing Method to Ribotyping Is Able to Distinguish the Ribotypes RT027 and RT176 From Other Ribotypes**

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2022  
Jurnal internasional bereputasi

## **Appropriateness of diagnosis and antibiotic use in sepsis patients admitted to a tertiary hospital in Indonesia**

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2022  
Jurnal internasional bereputasi

## **The effect of Channa striata extract and standard eradication regimen on asymmetric dimethylarginine in Helicobacter pylori gastritis rat model**

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2022  
Jurnal internasional bereputasi

## **The effect of snakehead fish extract supplementation to first-line eradication regimen on macrophage migration inhibitory factor (MIF) expression in rats induced by Helicobacter pylori infection**

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2022  
Jurnal internasional bereputasi

## **Predictive value of the urinary dipstick test in the management of patients with urinary tract infection-associated symptoms in primary care in Indonesia: a cross-sectional study**

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2022  
Jurnal internasional bereputasi

## **Laboratory-based versus population-based surveillance of antimicrobial resistance to inform empirical treatment for suspected urinary tract infection in Indonesia**

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2022

Jurnal internasional bereputasi

## **Rethinking Antimicrobial Resistance Surveillance: A Role for Lot Quality Assurance Sampling**

R LIA KUSUMAWATI

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2022

Jurnal internasional bereputasi

## **Antimicrobial resistance in uropathogens and appropriateness of empirical treatment: a population-based surveillance study in Indonesia**

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2022

Jurnal internasional bereputasi

## **Prevalence and Strain Characterization of Clostridioides (Clostridium) difficile in Representative Regions of Germany, Ghana, Tanzania and Indonesia - A Comparative Multi-Center Cross-Sectional Study**

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2022

Jurnal internasional bereputasi

## **Clinical Epidemiology of Pediatric COVID-19 Delta Variant Cases From North Sumatra, Indonesia**

INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI

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2022

Jurnal internasional bereputasi

## **Detection of A2058G and A2059G on the 23S rRNA Gene by Multiplex Nested PCR to Identify Treponema pallidum Resistance to Azithromycin in Indonesia**

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2022

Jurnal nasional terakreditasi

## **Pola Resistensi Antibiotik Pada Pasien Dewasa yang Menderita Pneumonia**

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2022

Jurnal nasional terakreditasi

## **Pola Resistensi Antibiotik Pada Pasien Dewasa yang Menderita Pneumonia di RS Usu Periode Januari 2017-Desember 2018**

R LIA KUSUMAWATI

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2021

Jurnal internasional

## **The Bacterial Profile and Antimicrobial Susceptibility Pattern among Patients with Suspected Bloodstream Infection in Universitas Sumatera Utara Hospital, Indonesia**

Mirzan Hasibuan , R LIA KUSUMAWATI

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2021

Jurnal internasional

## **Bacterial Profiles and Antimicrobial Susceptibility Patterns in Patients with Suspected Bloodstream Infections**

Mirzan Hasibuan , R LIA KUSUMAWATI

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2020

Jurnal nasional terakreditasi

## **Training On Improving Training On Improving Health Cadres Capacity In Eradication of Tuberculosis Disease In Communities**

INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI

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2020

Jurnal internasional bereputasi

## **The Therapeutic Effect of Nigella Sativa Extract on Female Wistar Rats Vaginal Candidiasis Model**

R LIA KUSUMAWATI , MUHAMMAD RUSDA

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2020  
Jurnal internasional bereputasi

## **A therapeutic effect of *Nigella sativa* extract on female Wistar rats vulvovaginal candidiasis model**

MUHAMMAD RUSDA , R LIA KUSUMAWATI

2020  
Jurnal internasional bereputasi

## **Whole-genome sequencing analysis of multidrug-resistant *Mycobacterium tuberculosis* from Java, Indonesia**

R LIA KUSUMAWATI

2020  
Jurnal internasional bereputasi

## **The effect of snakehead fish extract supplementation to first-line eradication regimen on macrophage migration inhibitory factor (MIF) expression in rats induced by *Helicobacter pylori* infection**

SYAFRUDDIN ILYAS , R LIA KUSUMAWATI

2020  
Jurnal internasional bereputasi

## **The effect of snakehead fish extract supplementation to first-line eradication regimen on macrophage migration inhibitory factor (MIF) expression in rats induced by ...**

R LIA KUSUMAWATI , SYAFRUDDIN ILYAS

2020  
Jurnal internasional

## **The role of single nucleotide Interleukin-6 (IL-6) polymorphism gene in Psoriasis vulgaris patients at Haji Adam Malik Central Hospital, Medan-Indonesia**

R LIA KUSUMAWATI , SYAFRUDDIN ILYAS

2020  
Jurnal internasional

## **The correlation TNF- $\alpha$ gene promoter region-238G,-308G,-857, and-1031 polymorphism with psoriasis vulgaris**

R LIA KUSUMAWATI , CASHTRY MEHER

2019  
Jurnal nasional terakreditasi

## **Karakteristik Trauma Mata Pada Anak di Rumah Sakit Umum Pusat Haji Adam Malik Medan Tahun 2011**

ARYANI ATIYATUL AMRA , R LIA KUSUMAWATI

2018  
Prosiding seminar internasional

## **Role Selective and Nonselective Media for Isolation of *Burkholderia* Species from Patients with Suspected Melioidosis**

Mirzan Hasibuan , R LIA KUSUMAWATI

2018  
Prosiding seminar internasional

## **Phenotypic and Molecular Detection of OXA-48 Gene Carbapenem-resistant *Klebsiella Pneumoniae* and *Escherichia Coli* Isolates in Haji Adam Malik Hospital Medan, Indonesia**

Mirzan Hasibuan , R LIA KUSUMAWATI , DWI SURYANTO

2018  
Prosiding seminar internasional

## **Vitamin D supplementation in tuberculosis patients: A cross-sectional study**

DINA KEUMALA SARI , R LIA KUSUMAWATI

2018  
Jurnal internasional bereputasi

## **Prevalence and Strain Characterization of *Clostridioides (Clostridium) difficile***

## **in Representative Regions of Germany, Ghana, Tanzania and Indonesia - AÂ ...**

R LIA KUSUMAWATI

2018

Jurnal internasional bereputasi

### **Prevalence and Strain Characterization of Clostridioides (Clostridium) difficile in Representative Regions of Germany, Ghana, Tanzania and Indonesia - AÂ ...**

R LIA KUSUMAWATI

2018

Prosiding seminar internasional

### **Vitamin C supplementation improve the sputum conversion culture rate in pulmonary tuberculosis treatment while rifampicin susceptible**

R LIA KUSUMAWATI

2018

Jurnal internasional

### **Multidrug-resistant Tuberculosis in a Tertiary Hospital in North Sumatera, Indonesia: Clinical Predictors and Molecular Investigation**

R LIA KUSUMAWATI

2018

Monograf

### **Cytological diagnostic of lymphadenitis tuberculosis by eosinophilic material**

ZAINUDDIN AMIR , DELYUZAR , R LIA KUSUMAWATI

2018

Prosiding seminar internasional

### **Phenotypic and molecular detection of BLACTX-M gene extended-spectrum beta-lactamases in escherichia coli and klebsiella pneumoniae of north sumatera isolates**

Mirzan Hasibuan , DWI SURYANTO , R LIA KUSUMAWATI

2018

Monograf

### **Perbedaan Pola Bakteri dan Uji Kepekaan Antibiotik pada Pasien Sepsis Dewasa dan Anak di Ruang Rawat Intensif RS Universitas Sumatera Utara**

R LIA KUSUMAWATI

2017

Buku referensi

### **Petunjuk Teknis Pemeriksaan TB Menggunakan Tes Cepat Molekuler**

R LIA KUSUMAWATI

2017

Monograf

### **Deteksi Gen Resisten CTX-M, SHV, OXA-48 pada Isolat Klinis Bakteri Escherichia coli dan Klebsiella pneumoniae yang Tergolong Multiple Drug Resistant Organisms**

R LIA KUSUMAWATI , DWI SURYANTO

2017

Buku referensi

### **Petunjuk Teknis Pemeriksaan TB Menggunakan Tes Cepat Molekuler**

R LIA KUSUMAWATI

2016

Monograf

### **Gambaran Kontaminasi Bakteri dan Jamur pada Sampel Maskara Mahasiswa Fakultas Kedokteran Universitas Sumatera Utara**

R LIA KUSUMAWATI

2015

Monograf

### **Standar Pelayanan Laboratorium Tuberkulosis**

R LIA KUSUMAWATI

2013  
Monograf

## **Deteksi virus chikungunya pada nyamuk *Aedes aegypti* di kabupaten Serdang Bedagai**

R LIA KUSUMAWATI , HEMMA YULFI

2013  
Book chapter internasional

## **Maternal-Child Health, Interdisciplinary Aspects Within the Perspective of Global Health**

R LIA KUSUMAWATI

## **Researches**

2025

### **A CLINICALLY - ORIENTED ANTIMICROBIAL RESISTANCE SURVEILLANCE NETWORK FOR HEALTHCARE- ASSOCIATED INFECTIONS/ACORN-HAI FAKULTAS KEDOKTERAN UNIVERSITAS SUMATERA UTARA**

INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI

2025

### **PENELITIAN ANTARA UNIVERSITAS SUMATERA UTARA DENGAN PREPARE PROGRAMME, NATIONAL CENTRE FOR INFECTIOUS DISEASES SINGAPORE**

BINTANG YINKE MAGDALENA SINAGA , INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI

2024

Kerjasama Luar Negeri dan Publikasi Internasional

### **A CLINICALLY - ORIENTED ANTIMICROBIAL RESISTANCE SURVEILLANCE NETWORK FOR HEALTHCARE - ASSOCIATED INFECTIONS/ ACORN-HAI**

R LIA KUSUMAWATI

2024

Kerjasama Luar Negeri dan Publikasi Internasional

### **Health system enhancement for pandemic preparedness**

Ivana Alona , INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI , Shenglan Tan

2022

Penelitian Dana Lokal Perguruan Tinggi

### **Peneitian**

R LIA KUSUMAWATI

2020

Penelitian Unggulan Perguruan Tinggi

### **ANALISA WHOLE GENOME SEQUENCING PADA SAMPEL SARS-CoV-2 DARI SUMATERA UTARA DAN HUBUNGANNYA DENGAN MANIFESTASI KLINIS PASIEN COVID-19**

RAMADHAN BESTARI , INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI , M. Ichwan , Prof. Kazufumi Shimizu

## **Community Services**

2022  
Ipteks

### **Praktik Dokter Spesialis Mikrobiologi Klinik-Konsultan**

R LIA KUSUMAWATI

2025

Ipteks Bagi Masyarakat

### **PEMERIKSAAN ULTRASONOGRAFI (USG) THORAX PADA PASIEN DENGAN CURIGA TUBERKULOSIS DI WILAYAH KERJA PUSKESMAS AMBARITA,**

# SAMOSIR

ARIDAMURIANY DWIPUTRI LUBIS , CUT MELIZA ZAINUMI , R LIA KUSUMAWATI , ANANDA WIBAWANTA GINTING

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2025

Ipteks

## **Praktik Dokter Spesialis Mikrobiologi Klinik-Konsultan**

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2025

Ipteks

## **Praktik Dokter Spesialis Mikrobiologi Klinik-Konsultan**

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2025

Ipteks

## **Praktik Dokter Spesialis Mikrobiologi Klinik-Konsultan**

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2023

Ipteks

## **TB Research Training Program Asia**

R LIA KUSUMAWATI

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2021

Ipteks Bagi Masyarakat

## **DETEKSI SARS-CoV-2 PADA TENAGA KESEHATAN (NAKES) PASCA VAKSIN: NAKES YANG BERTUGAS PADA RUANG ISOLASI PASIEN COVID-19 DAN KELUARGA NAKES SEBAGAI KONTAK ERAT**

R LIA KUSUMAWATI , JELITA SIREGAR

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2020

Ipteks Bagi Masyarakat

## **Deteksi SARS-CoV-2 pada Orang Dalam Pemantauan (ODP) dengan Pendekatan Molekuler dan Serologi**

R LIA KUSUMAWATI , JELITA SIREGAR

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2020

## **Pengabdian Masyarakat sebagai Tenaga Kesehatan, Tenaga Medis, serta Tenaga Pendukung Lainnya pada Gugus Tugas Percepatan Penanganan Corona Virus Disease 2019 di Provinsi Sumatera Utara**

RAMADHAN BESTARI , INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI , M. Ichwan , Edy Rahmayadi (Gubernur Sumatera Utara)

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2019

Ipteks Bagi Masyarakat

## **PENINGKATAN KAPASITAS KADER KESEHATAN DI KECAMATAN MEDAN TUNTUNGAN DALAM PEMBERANTASAN PENYAKIT MENULAR TUBERKULOSIS DI MASYARAKAT**

INKE NADIA DINIYANTI LUBIS , R LIA KUSUMAWATI

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