#### LEMBAR HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW KARYA ILMIAH : JURNAL ILMIAH

Judul Karya Ilmiah (Artikel) : Difference of Tumor Necrosis Factor (TNF-α) Levels in Multibacillary Leprosy between Reversal Reaction and Non-reversal Reaction Patients Jumlah Penulis : 4 Orang Status Pengusul : Renni Yuniati, Fatihatul Firdaus Munita, BAZILAH Dayana, FIKA Amalia Identitas Jurnal Ilmiah : a. Nama Jurnal : Pak J Med Health Sci b. Nomor ISSN : 19967195 c. Vol. Nomor, halaman : Vol. 12 issue 3, p: 1381-1383 d. Edisi : Jul -Sept 2018 e. Penerbit : Department Of Surgery, Mayo Hospital f. Jumlah halaman : 3 g. DOI artikel (jika ada) h. Alamat web jurnal : https://pjmhsonline.com/2018/july\_sep/pdf/1381.pdf i. Terindeks di : Q4, SJR 0.114 j. On line turnitin https://doc-pak.undip.ac.id/9138/1/Turnitin Difference of Tumor Necrosis Factor.pdf

Kategor	i Publikasi .	Jurnal Ilmiah
(beri √ı	pada kategoi	ri yang tepat)

Jurnal Ilmiah Internasional/ Internasional Bereputasi\*\*

Jurnal Ilmiah Nasional Terakreditasi
Jurnal Ilmiah Nasional/Nasional

Hasil Penilaian Peer Review:

	Nilai Maksimal Jurnal Ilmiah			
Komponen Yang Dinilai	Internasional / Internasional Bereputasi ** 40	Nasional Terakreditasi	Nasional ***	Nilai Akhir Yang Diperol eh
a. Kelengkapan unsur isi artikel (10%)	4			3,0
b. Ruang lingkup dan kedalaman pembahasan (30%)	12			11,0
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12			11,5
d. Kelengkapan unsur dan kualitas terbitan/ jurnal (30%)	12			11,5
Total = (100%)	40			37,0
Nilai Pengusul =			60% x 37,0	= 22,0

#### Catatan penilaian Artikel oleh Reviewer:

- a. Kelengkapan unsur isi artikel : abstrak lengkap, singkat, dan jelas. Pendahuluan lengkap dengan latar belakang dan tujuan penelitian, metode lengkapdesain penelitian sampai dengan analisis statistic yg dipakai, tidak tercantum nomor rekomendasi komite Etik Airlangga, hasil tersaji dengan tabel dan gambar jelas, Pembahasan didukung pustaka relevan namun sebagian besar (80%) > 10 tahun
- b. Ruang lingkup dan kedalaman pembahasan : lingkup keilmuan sesuai dengan bidang ilmu pengusul yaitu Ilmu Kulit Kelamin, penyakit lepra dibahas mendalam dan hasilnya dibandingkan dengan penelitian terdahulu, namun pustaka yg disitasi sebagian besar > 10 tahun
- c. Kecukupan dan kemutahiran data/informasi dan metodologi: studi analitik observasional dengan desain belah lintang, data diperoleh dengan pemeriksaan imunohistokimia yg terstandar, tersaji dengan gambar dan tabel
- d. Kelengkapan unsur dan kualitas terbitan/ jurnal: Pak J Med Health Sci, penerbit: Department Of Surgery, Mayo Hospital, merupakan Jurnal Ilmiah Internasional bereputasi, terindeks scopus Q4, SJR 0,114

Semarang, 10 Desember 2021

Reviewer 1

Prof. Dr. drg. Oedijani, M.S. NIP. 194902091979012001

Unit kerja: Fakultas Kedokteran Undip

Bidang ilmu : Kedokteran Gigi Jabatan pangkat : Guru Besar

#### LEMBAR HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW KARYA ILMIAH: JURNAL ILMIAH

Judul Karya Ilmiah (Artikel)

: Difference of Tumor Necrosis Factor (TNF-a) Levels in Multibacillary

Leprosy between Reversal Reaction and Non-reversal Reaction Patients

Jumlah Penulis

: 4 Orang

Status Pengusul

: Renni Yuniati, Fatihatul Firdaus Munita, BAZILAH Dayana, FIKA Amalia

Identitas Jurnal Ilmiah :

: Pak J Med Health Sci

a. Nama Jurnal b. Nomor ISSN

: 19967195

c. Vol, Nomor, halaman

: Vol. 12 issue 3, p: 1381-1383

d. Edisi

: Jul -Sept 2018

e. Penerbit

: Department Of Surgery, Mayo Hospital

f. Jumlah halaman

g. DOI artikel (jika ada)

: 3

h. Alamat web jurnal

: https://pjmhsonline.com/2018/july\_sep/pdf/1381.pdf

i. Terindeks di

: Q4, SJR 0.114 (2020)

j. On line turnitin

https://doc-pak.undip.ac.id/9138/1/Turnitin Difference of Tumor Necrosis Factor.pdf

Kategori Publikasi Jurnal Ilmiah (beri √pada kategori yang tepat)

V Jurnal Ilmiah Internasional/ Internasional Bereputasi\*\* Jurnal Ilmiah Nasional Terakreditasi Jurnal Ilmiah Nasional/Nasional

Hasil Penilaian Peer Review:

		Nilai Maksimal Jurnal Ilmiah			
Komponen Yang Dinilai		Internasional / Internasional Bereputasi ** 40	Nasional Terakreditasi	Nasional	Nilai Akhir Yang Diperoleh
a.	Kelengkapan unsur isi artikel (10%)	4			3
b.	Ruang lingkup dan kedalaman pembahasan (30%)	12			10,6
C.	Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	12			10,6
d.	Kelengkapan unsur dan kualitas terbitan/ jurnal (30%)	12			9
	Total = $(100\%)$	40			33,2
	Nilai Pengusul =			$60\% \times 33,2 = 1$	9,92

#### Catatan penilaian Artikel oleh Reviewer:

- Kelengkapan unsur isi artikel: Jurnal internasional bereputasi terindex SCOPUS, dengan SJR 0.114, unsur lengkap dari abstrak, pendahuluan, metode, hasil pembahasan hingga daftar pustaka.
- b. Ruang lingkup dan kedalaman pembahasan : Penelitian ini bertujuan untuk mengetahui perbedaan kadar TNF-α pada both multibacillary leprosy patients with and without reversal reaction. Penelitian sangat sesuai dengan bidang ilmu. Pembahasan mendalam dengan mensitasi 16 pustaka dimana >80% pustaka primer.
- Kecukupan dan kemutahiran data/informasi dan metodologi: Penelitian cross sectional yang dibagi menjadi dua kelompok masing-masing terdiri dari 28 pasien kusta tanpa reaksi balik. Kadar TNF-α diukur dengan pewarnaan imunohistokimia. Tingkat TNF-a pada kedua kelompok masing-masing dianalisis menggunakan independent sampel uji T.

d. Kelengkapan unsur dan kualitas terbitan/ jurnal: Terbitan lengkap memuat vol, no, tahun dan daftar isi dan terindeks di SCOPUS, namun tidak ada DOI

> Semarang, Reviewer

Dr. Diana Nur Afifah, S.TP., M.Si.

NIP. 198007312008012011

: Fakultas Kedokteran Undip Unit kerja

: Ilmu Gizi Bidang ilmu Jabatan pangkat : Lektor Kepala



JOURNAL INDEX

Peer Reviewed

MENU	Previous Published Issues	
FORMAT REQUIREMENTS		

## Submission Format according to article type

Review article: maximum 4000 words excluding title page and an unstructured abstract of 150 words and references with no more than five tables or figures and 35 references.

Original article: maximum 3000 words excluding title page and a structured abstract of 250 words and references with no more than three tables or figures and 25 references Short Reports / Short Communications / Special Communications / Case reports: maximum 1250 words excluding title page and an unstructured abstract of 150 words and references with no more than two tables or figures and 10 references. It should not be signed by more than six authors.

Case Report: Abstract; Introduction; Case Report; Discussion and Conclusion.

Short Report: Abstract; Introduction; Patients Methods and Result; and Conclusion.

Special Communication: Abstract; Introduction; Methods and Result; and Conclusion.

Letters to the Editor: maximum 250 words if it is in reference to a recent journal article, or 400 words in all other cases. It must have no more than five references and one figure or table. It must not be signed by any more than three authors. Letters referring to a recent journal article must be received within four weeks of its publication.

## General Requirements

Manuscript must be written in 'British English'. Non-native English speakers must seek the assistance of experienced, English-speaking medical editors if in doubt. Taking feedback from your colleagues also makes the manuscript writing more productive, versatile and simple for the readers.

- Type the manuscript on A4 size (8.5x11 inches or 21.6x27 cm) white bond paper, with margins of at least 1.5 inches (4 cm).
- Type on one side of the paper, double spacing every page.



Read all...

### **EDITORIAL POLICY**

Pakistan Journal of Medical & Health Sciences is an international biomedical journal from Pakistan. We publish materials of interest to the practitioners and scientists in the broad field of medicine. Articles describing original qualitative, quantitative, human/animal clinical or laboratory studies are considered for publication. All manuscripts should be comprehensible to the general reader and lead to improved decision making in clinical practice, medical education, research and policy. Types of articles include case reports, case series, descriptive and analytical research with clinical trials, short reports, special communications and letter to the editor. Clinical conference abstracts, special issues, articles regarding innovation and those related to research methods and reporting are also published. Secondary research including narrative reviews, systematic reviews, evidence based articles, meta-analysis, practice guidelines will also be considered for publication. From time to time invited articles are published. Manuscripts must be original and not under consideration by another publication.

Coals of Conference

Britishment of birming (Indiana) Interest transmitted birming (Indiana) Interest Indiana) Interest Indiana Interest Interest Indiana Interest Interest Indiana Interest Intere

Read all...





**JOURNAL INDEX** 

Peer Reviewed

**MENU** 

#### **Previous Published Issues**



## **Editorial Board**

# **PJMHS**

#### Pak J Med Health Sci is indexed by:

Web of Science

Elsevier in EMBASE Scopus

EMR Index Medicus (IMEMR) of WHO

Pakistan Medical & Dental Council (PMDC)

Higher Education Commission (HEC), Pakistan

#### **EDITORIAL BOARD**

Editor in Chief	Editors	Associate Editors
Abdul Majeed Chaudhry	Yaseen Rafi	Syed Asghar Naqi
Asadullah Malik	Khalid Irshad (UK)	M. Nadeem Aslam
		Abrar Ashraf Ali

**Assistant Editors Biostatician** 

Wasim Amir Minahil Irum

Hammad Naeem Rana

#### **ADVISORY BOARD**

Nighat Nadeem

National	International	
Farid Ahmad Khan	Afaq Zaman Khan (USA)	
Muhammad Javaid Athar	Naeem Akhtar (UK)	
Mudassira Saqib	Munir Ahmad Rathore (UK)	
Shahzad Shams Goraya	Muhammad Ahmad (UK)	
Syed Irfan Hussain	Donald B Reid (UK)	
Masood Rashid	Amer Farooq Majeed (UK)	

Editorial correspondence should be addressed to the Editor-in-Chief

Email: nayyar\_salam@yahoo.com

Annual subscription rates: in Pakistan: Rs.1500/- Overseas Individual USD 300; Institutional: USD900

Publication Office: Basement Barkat Center, Royal Park, Lahore

Copyright © Pakistan Journal of Medical & Health Sciences 2021. All rights reserved!

	1	
1343	PDF ◆	Insufficient Implementation of Tuberculosis Screening and Prophylaxis in Child Contacts: a Situational Analysis  J Krotzek-Seah, AB Himawan, A Rondags, JF Metsemakers, Tri Nur Kristina
1350	PDF <b>▼</b>	Investigation of Azoospermia Factor (AZF) microdeletion of hypospadia patients in Indonesian population Achmadzulfajuniarto, Nurinaisyiyahlistyasari, Ardy Santosa, Sultana MH Faradz
1354	PDF ◆	Physical Inactivity, High Carbohydrate Intake, and Metabolic Factors Associated with Abdominal Obesity among Indonesian Adolescents Etika Ratna Noer, Animargawati, Ria Purnawian, Ismisafitrinuraini
1357	PDF. ♣	The Medication Adherence and the Conversion of Acid Fast Bacilli of Pulmonary Tuberculosis Patients: A Retrospective Cohort Study in the Centre for Pulmonary Health Semarang Tri Purwidi Hastuti, Praba Ginandjar, Lintang Dian Saraswati
1360	PDF. ◆	Comparisons of Caspase-3 and Caspase-7 Expression from Retinal Ganglion Cells Apoptosis Post Folic Acid and Methylcobalamine Administrations In Methanol Toxic Wistar Rats Models Riski Prihatningtias, Arief Wildan, Christine Yuliana, Iman Krisnugroho
1363	PDF. ◆	Risk and Early Changes of Left Ventricular Structure and Function in Young Obesity Sefrinoventi Sofia, Sugiri, Ilham Uddin, Susi Herminingsih, Arif Nugroho, Selamat Budijitno
1368	PDF <b>♦</b>	<u>Spiritual Dhikr Reduces Stress and Depression Symptom on Primigravidas</u> Sri Wahyuni, Anies, Ariawan Soejoenoes, <i>Suhartono Taat putra, M. Amin Syukur</i>
1372	PDF ◆	The Association between Batik Making Process with Electrocardiogram, Pulmonary Function, and Musculoskeletal Disorder in Batik Artisan Lathifa Putry Fauzia, Ilva Widyaningtyas Savitri, Sekar Arum Nuring Kurnia, Tanjung Ayu Sumekar, Hardian
1378	PDF. ▼	The Effectiveness of Cabe Jawa (Piper Retrofractrum, Vahl) Essential Oil Aromatherapy to Patient's Blood Pressure, Pulse Rate, and Respirations Before Tooth Extraction Anggun Octaviearly Prayitno, Sulistiyani, Budi Yuwono
1381	PDF. ▼	Difference of Tumor Necrosis Factor (TNF-α) Levels in Multibacillary Leprosy between Reversal Reaction and Non-reversal Reaction Patients Renni Yuniati, Fatihatul Firdaus Munita, Bazilah Dayana, Fika Amalia
1384	PDF. ◆	Effects of Coffee as Oral Hygiene Media in Patient with Head and Neck Cancer on Comfort Level Brigittaayudwi Susanti, Untung Sujianto, Nikensafitrid K
1389	PDF ◆	The Medication Adherence and the Conversion of Acid Fast Bacilli of Pulmonary Tuberculosis Patients: A Retrospective Cohort Study in the Centre for Pulmonary Health Semarang  Tri Purwidi Hastuti, Praba Ginandjar, Lintang Dian Saraswati
1392	PDF <b>♦</b>	Effect of Mindfulness Intervention on the Intensity of Pain and Anxiety in Nasopharyngeal Cancer Patients  Anna Jumatul Laely, Awal Prasetyo, Chandra Bagus Ropyanto

## 3D QSAR Studies of 2-Arylpyrimidines and S-Triazines as Selective PDE4B Inhibitors

**ANAND GAURAV, DHARMENDRA KUMAR** 

#### ABSTRACT

**Background:** Phosphodiesterase 4B (PDE4B) has emerged as important target for design of antiinflammatory drugs for respiratory tract. Several selective PDE4B inhibitors are under various stages of development, among them 2-arylpyrimidines and s-triazines have been identified as inhibitors with high degree of selectivity for PDE4B. However, the structural features responsible for the PDE4B selectivity of these molecules have not been identified and explored so far.

**Method:** 3D QSAR studies were performed for the series of 2-arylpyrimidines and s-triazines using Accelrys Discovery Studio 3.5. The  $IC_{50}$  values were transformed to PDE4B selectivity by taking the ratio of  $IC_{50}$  values i.e. PDE4D( $IC_{50}$ )/PDE4B( $IC_{50}$ ) for all the molecules in the series, and used as the dependent variable. The dataset was divided into training and test set of 45 and 10 compounds respectively and 3D QSAR was performed using the default parameters. Test set prediction and Fischer statistic was used for validation of the developed model.

**Results:** Statistically robust and predictive 3D QSAR models with high  $r^2_{cv}$  value of 0.9794 were obtained. The contour maps revealed the sterically and electronically favourable and unfavourable regions around the 2-arylpyrimidines and s-triazines scaffolds.

**Conclusion:** 3D QSAR model for 2-arylpyrimidines and s-triazines as selective PDE4B inhibitors were developed and validated. The models were highly predictive and provided vital structural information for the design of newer and more selective PDE4B inhibitors having the 2-arylpyrimidine and striazines scaffold. The results of the present study will be followed up by the design, synthesis and experimental evaluation of newer selective PDE4B inhibitors.

**Keywords**: Cyclic Nucleotide Phosphodiesterases, Type 4B; 3D Quantitative Structure-Activity Relationship; Fischer statistic; 2-arylpyrimidines; s-triazines

#### INTRODUCTION

Prevalence of Inflammatory diseases of respiratory tract i.e., asthma and COPD has increased in recent years, with more than 200 million people affected by it worldwide. Most of the mortality related to these inflammatory disorders occurs in low- and low middle income countries<sup>1</sup>.

Phosphodiesterase 4 (PDE4) is a major family of enzymes that selectively hydrolyze 3',5'-cyclic adenosine monophosphate (cAMP) and are involved in regulating the release of anti-inflammatory and pro-inflammatory cytokines within cells<sup>2,3,4</sup>. Even though PDE4s are widely expressed in immune and inflammatory cells, levels of different PDE4 subtypes (PDE4A, PDE4B, PDE4C and PDE4D) vary in a specific cell. PDE4B is abundant in monotypes and neutrophils, while PDE4A is expressed to very low levels and PDE4C is absent in inflammatory cells<sup>5,6,7,8,9</sup>. This makes PDE4B an interesting and

Department of Pharmaceutical Chemistry, Faculty of Pharmaceutical Sciences, UCSI University, Taman Connaught, Cheras, 56000, Kuala Lumpur, Malaysia

Correspondence to Dr. Anand Gaurav Email: anand.pharma@gmail.com.Tel. +60176894547; Fax: +6039102 2614

promising targets for anti-inflammatory drugs meant to be used in respiratory inflammatory diseases such as asthma and chronic obstructive pulmonary disease (COPD). Inhibition of PDE4 has been shown to suppress a diverse spectrum of inflammatory responses invitro and in vivo. 10-13 More importantly, many PDE4 inhibitors in development are efficacious in animal models of various inflammatory disorders, such as asthma, COPD, psoriasis, inflammatory bowel diseases, and rheumatoid arthritis 11,14,15, as well as in clinical trials for asthma and COPD16,17,18. However the development of PDE4 inhibitors has been slowed down due to narrow therapeutic window of most of the compounds. A major reason for their poor clinical results is the consequence of dosing limitation caused by side effects such as nausea and emesis.<sup>19</sup> Recent findings in PDE4 knockout mice suggest that an inhibitor with PDE4B selectivity should retain many beneficial anti-inflammatory effects without the unwanted side effects<sup>20,21</sup>.

The highly conserved catalytic domain of PDE4 isozymes makes the generation of inhibitors with PDE4 subtype selectivity a challenging task. However, residues in regulatory domain such as control region 3 (CR3) vary among subfamilies, which has proved to be responsible for PDE4B selectivity.<sup>22</sup>

#### Insufficient Implementation of Tuberculosis Screening **Prophylaxis in Child Contacts: a Situational Analysis**

J KROTZEK-SEAH1, AB HIMAWAN2, A RONDAGS1,3, JF METSEMAKERS1, TRI NUR KRISTINA2\*

#### ABSTRACT

**Background:** Contact investigations and chemoprophylaxis are proven cost-effective and safe means to reduce TB-related morbidity and mortality in children living with pulmonary tuberculosis (PTB) cases. Aim: To evaluate the implementation of tuberculosis (TB) screening and chemoprophylaxis in child contacts of smear-positive adult TB cases, and to identify practical barriers experienced by the staff of community health centers (CHCs) in a rural area in Central Java, Indonesia.

Methods: Firstly, a short questionnaire was used to collect information on whether children in the household were screened and received chemoprophylaxis through home visits or at the CHC. Secondly, semi-structured interviews and an FGD were performed with the TB officer, a nurse responsible for the TB program activities, the assistant of the TB officer, a medical doctor from the outpatient clinic, and the head of the CHC. The data was then independently analyzed using the theoretical thematic analysis, then the findings were compared and integrated into one set of themes.

Results: Out of 67 child contacts, determined through record reviews and visits of smear-positive TB patients, only 5(7.5%) were screened. None was started on chemoprophylaxis. In-depth interviews and a focus group discussion with CHCs' staff identified shortcomings in organization and management of care, lack of awareness and knowledge among staff, limited understanding of caregivers, and practical obstacles related to the rural setting.

Conclusions: A comprehensive approach is needed that matches these site-specific practical barriers and might require a redistribution of organizational power from health authorities to the CHCs.

Keywords: TB contact, children, screening, chemoprophylaxis

#### INTRODUCTION

It is only in recent years that more attention is drawn on the burden and impact of childhood tuberculosis (TB). Children usually get infected with the Mycobacterium tuberculosis by adult pulmonary TB (PTB) cases in their closest surroundings, i.e., parents or other household members. Particularly in children under 5 years of age (under-fives), bearing an underdeveloped immune system, the risk of progression to active disease after primary infection high<sup>1,2</sup>. Contact investigations chemoprophylaxis with isoniazid preventive therapy (IPT), are proven cost-effective and safe means to reduce TB-related morbidity and mortality in children living with PTB cases<sup>3</sup>.<sup>3</sup>IPT can reduce the risk of developing active disease from primary (asymptomatic) infection by 60-65% over 2 years or longer3.

In Indonesia, where TB remains a major public health challenge, 8.47% of the 328.824 newly

<sup>1</sup> Faculty of Health, Medicine and Life Sciences, Maastricht University, P.O. Box 616, 6200MD Maastricht, The Netherlands <sup>2</sup>Facultyof Medicine, Diponegoro University, Jalan Prof Soedharto, Kota Semarang, Jawa Tengah 50275, Indonesia <sup>3</sup>Department of Dermatology, University Medical Center Groningen, P.O. Box 30.001, 9700RB Groningen, The Netherlands Corresponding author: Tri Nur Kristina Email: t\_nurkristina@yahoo.com

diagnosed patients in 2012 were under the age of 15 years, exceeding the global average of 6% of TB cases that occur in children4. The Indonesian national TB control program (NTP) recommends screening of all child household contacts (in particular under-fives) of smear-positive PTB cases using the Indonesian scoring system for TB diagnosis in children<sup>5</sup>.

Different from the WHO recommendations (Fig. 1), this scoring system requires tuberculin skin test (TST) and chest-X-ray (CXR). If TB disease is excluded (i.e. score <6), under-fives should receive a 6-month IPT (5-10 mg/kg bodyweight daily),5which in line with the present WHO recommendations<sup>6</sup> (Fig. 1). Current recommendations recommend 10mg/kg per day for 6 months<sup>7</sup>.

systematic review showed an overall prevalence of TB infection ranging from 24.4 to 69.2% in children (<15 years) living with a smearpositive TB case in South East Asia8 Despite the benefits of screening and chemoprophylaxis in child contacts, numerous studies from high TB burden countries indicated that these measures are often poorly implemented<sup>9-11</sup>. A cross-sectional study in 4 TB units in South India, for example, showed that only 14% of 84 child contacts under 5 years had been screened for TB disease, and only 19% had been initiated on IPT with no follow-up. Focus group