



Source details

Infectious Disease Reports

Open Access ⓘ

Scopus coverage years: from 2009 to Present

Publisher: Multidisciplinary Digital Publishing Institute (MDPI)

ISSN: 2036-7430 E-ISSN: 2036-7449

Subject area: Medicine: Infectious Diseases

Source type: Journal

CiteScore 2021

1.4 ⓘ

SJR 2021

0.385 ⓘ

SNIP 2021

0.440 ⓘ

[View all documents >](#)

[Set document alert](#)

[Save to source list](#)

[CiteScore](#) [CiteScore rank & trend](#) [Scopus content coverage](#)

Improved CiteScore methodology

CiteScore 2021 counts the citations received in 2018-2021 to articles, reviews, conference papers, book chapters and data papers published in 2018-2021, and divides this by the number of publications published in 2018-2021. [Learn more >](#)

CiteScore 2021 ⌵

$$1.4 = \frac{251 \text{ Citations 2018 - 2021}}{176 \text{ Documents 2018 - 2021}}$$

Calculated on 05 May, 2022

CiteScoreTracker 2022 ⓘ

$$2.3 = \frac{489 \text{ Citations to date}}{211 \text{ Documents to date}}$$

Last updated on 05 August, 2022 • Updated monthly

CiteScore rank 2021 ⓘ

Category	Rank	Percentile
Medicine		
Infectious Diseases	#219/295	25th

[View CiteScore methodology >](#) [CiteScore FAQ >](#) [Add CiteScore to your site](#)



Ads by Google

Stop seeing this ad

Why this ad? ⓘ

Infectious Disease Reports

COUNTRY

Switzerland



Universities and research institutions in Switzerland

SUBJECT AREA AND CATEGORY

Medicine
Infectious Diseases

PUBLISHER

Multidisciplinary Digital Publishing Institute (MDPI)

H-INDEX

19

PUBLICATION TYPE

Journals

ISSN

20367430, 20367449

COVERAGE

2009-2021

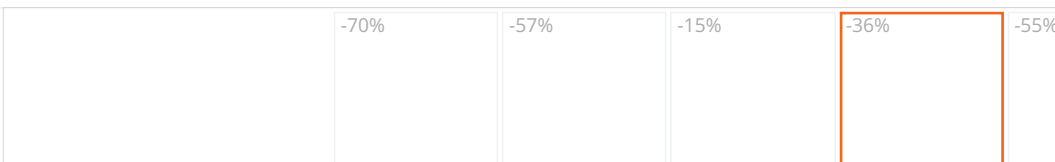
INFORMATION

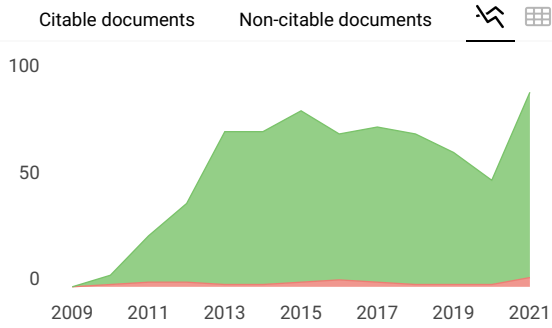
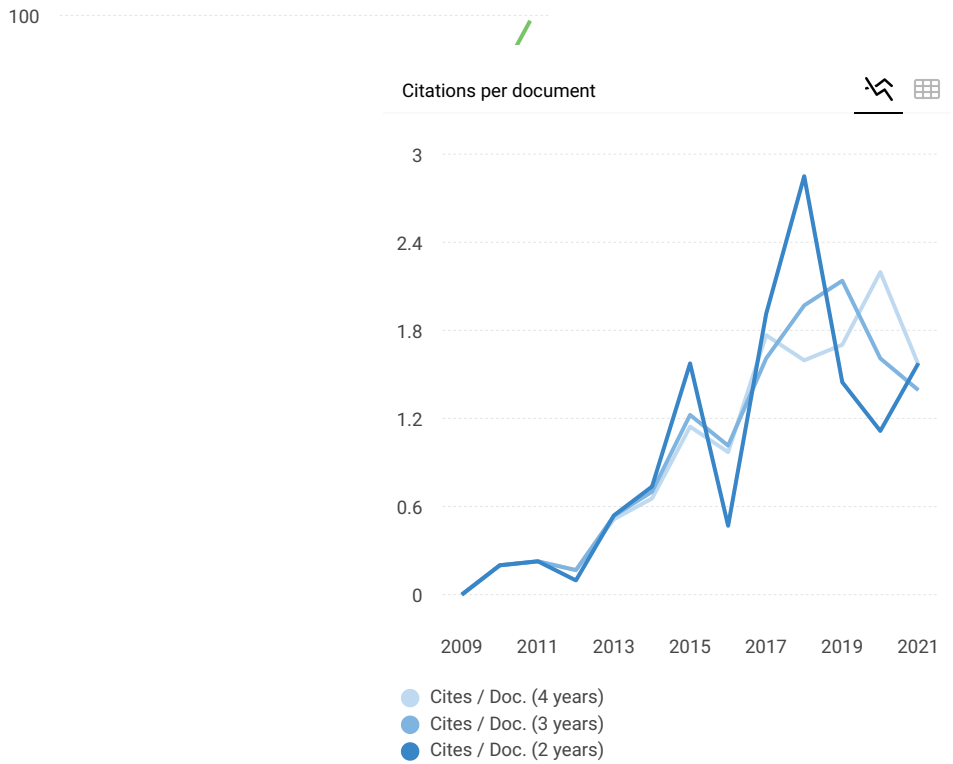
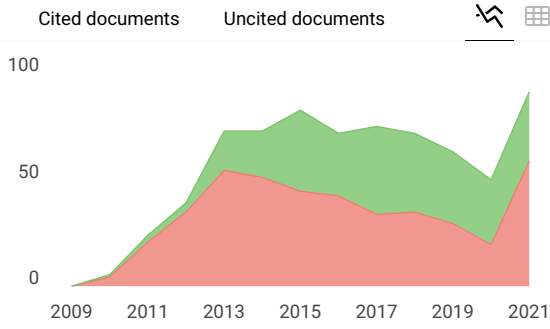
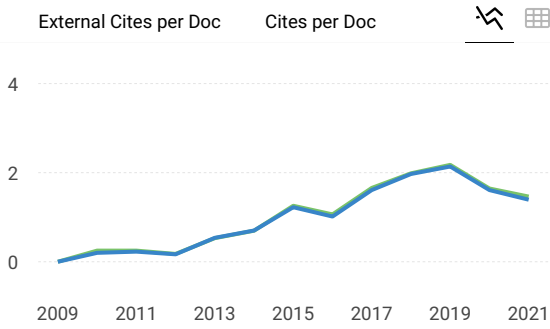
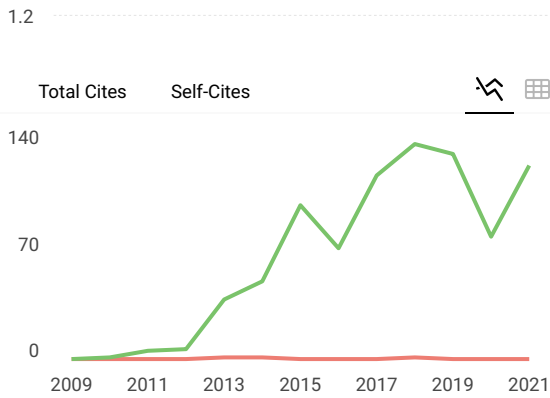
[Homepage](#)

[How to publish in this journal](#)



SCOPE





Infectious Disease Reports

Q3 Infectious Diseases
best quartile

SJR 2021
0.39

powered by scimagojr.com

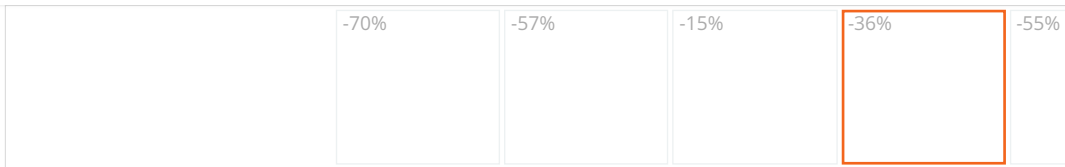
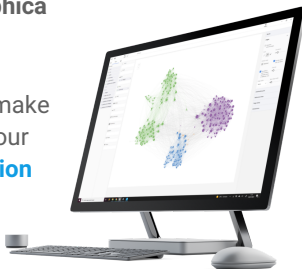
← Show this widget in your own website

Just copy the code below and paste within your html code:

```
<a href="https://www.scimaç
```

SCImago Graphica

Explore, visually communicate and make sense of data with our **new data visualization tool**.





Sign In / Sign Up

Submit

Search for Articles:

Title / Keyword

Author / Affiliation

Infectious Disease Re...

All Article Types

Search

Advanced

Journals / Infectious Disease Reports



infectious disease reports

Submit to Infectious Disease Reports

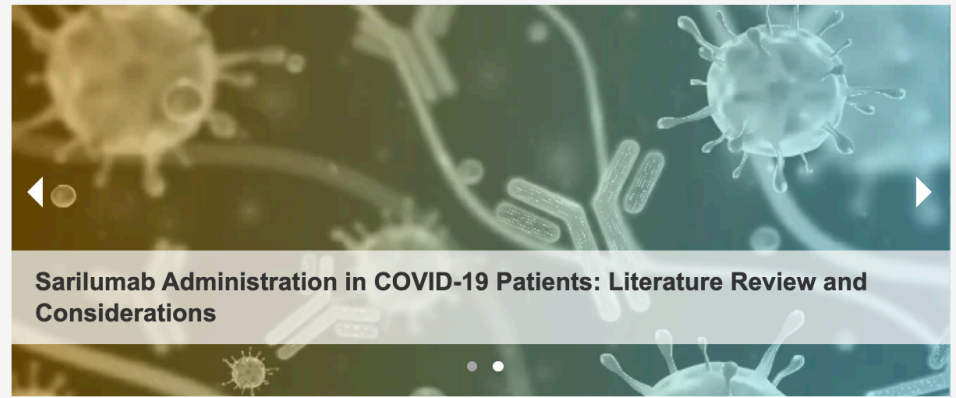
Review for Infectious Disease Reports



Share

Journal Menu

- Infectious Disease Reports Home
- Aims & Scope
- Editorial Board
- Reviewer Board
- Instructions for Authors
- Special Issues
- Sections
- Article Processing Charge
- Indexing & Archiving
- Most Cited & Viewed
- Journal Statistics
- Journal History
- Editorial Office



Sarilumab Administration in COVID-19 Patients: Literature Review and Considerations

Infectious Disease Reports

Infectious Disease Reports is an international, scientific, peer-reviewed open access journal on infectious diseases published bimonthly online by MDPI (from Volume 12 Issue 3 - 2020).

- Open Access** — free to download, share, and reuse content. Authors receive recognition for their contribution when the paper is reused.
- High Visibility:** indexed within Scopus, ESCI (Web of Science), PubMed, PMC, and other databases.
- Rapid Publication:** manuscripts are peer-reviewed and a first decision provided to authors approximately 19.3 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2022).
- Recognition of Reviewers:** APC discount vouchers, optional signed peer review, and reviewer

E-Mail Alert

Add your e-mail address to receive forthcoming issues of this journal:

Enter Your E-Mail Address...

Subscribe

News

- 20 June 2022 MDPI's 2021 Young Investigator Awards in "Medicine & Pharmacology"—Winners Announced
- 20 June 2022 MDPI's 2021 Travel Awards in "Medicine & Pharmacology"—Winners Announced
- 20 June 2022 MDPI's 2021 Outstanding Reviewer Awards in "Medicine & Pharmacology"—Winners Announced

[Sign In / Sign Up \(/user/login\)](#)

[Submit \(https://susy.mdpi.com/user/manuscripts/upload?journal=idr\)](https://susy.mdpi.com/user/manuscripts/upload?journal=idr)

Search for Articles:

Advanced Search

[Journals \(/about/journals\)](#) / [Infectious Disease Reports \(/journal/idr\)](#) / [Volume 12 \(/2036-7449/12\)](#) / [Issue s1](#) /



[\(/journal/idr\)](#)



<https://www.ncbi.nlm.nih.gov/pubmed/?term=2036-7449>

Submit to *Infectious Disease Reports* ([https://susy.mdpi.com/user/manuscripts/upload?form\[journal_id\]=469](https://susy.mdpi.com/user/manuscripts/upload?form[journal_id]=469))

[Review for Infectious Disease Reports \(https://susy.mdpi.com/volunteer/journals/review\)](https://susy.mdpi.com/volunteer/journals/review)

Journal Menu

► **Journal Menu**

- [Infectious Disease Reports Home \(/journal/idr\)](#)
- [Aims & Scope \(/journal/idr/about\)](#)
- [Editorial Board \(/journal/idr/editors\)](#)
- [Reviewer Board \(/journal/idr/submission_reviewers\)](#)
- [Instructions for Authors \(/journal/idr/instructions\)](#)
- [Special Issues \(/journal/idr/special_issues\)](#)
- [Sections \(/journal/idr/sections\)](#)
- [Article Processing Charge \(/journal/idr/apc\)](#)
- [Indexing & Archiving \(/journal/idr/indexing\)](#)
- [Most Cited & Viewed \(/journal/idr/most_cited\)](#)
- [Journal Statistics \(/journal/idr/stats\)](#)
- [Journal History \(/journal/idr/history\)](#)
- [Editorial Office \(/journal/idr/editorial_office\)](#)

Journal Browser

► **Journal Browser**

- > [Forthcoming issue \(/2036-7449/14/5\)](#)
- > [Current issue \(/2036-7449/14/4\)](#)

- [Vol. 14 \(2022\) \(/2036-7449/14\)](#)
- [Vol. 13 \(2021\) \(/2036-7449/13\)](#)
- [Vol. 12 \(2020\) \(/2036-7449/12\)](#)

Volumes not published by MDPI

- [Vol. 11 \(2019\) \(/2036-7449/11\)](#)
- [Vol. 10 \(2018\) \(/2036-7449/10\)](#)
- [Vol. 9 \(2017\) \(/2036-7449/9\)](#)
- [Vol. 8 \(2016\) \(/2036-7449/8\)](#)

- [Vol. 7 \(2015\) \(/2036-7449/7\)](#)
- [Vol. 6 \(2014\) \(/2036-7449/6\)](#)
- [Vol. 5 \(2013\) \(/2036-7449/5\)](#)
- [Vol. 4 \(2012\) \(/2036-7449/4\)](#)

Infectious Disease Reports is published by MDPI from Volume 12 Issue 3 (2020). Previous articles were published by another publisher in Open Access under a CC-BY (or CC-BY-NC-ND) licence, and they are hosted by MDPI on mdpi.com as a courtesy and upon agreement with PAGEPress.

Infect. Dis. Rep., Volume 12, Issue s1 (July 2020) – 33 articles

- Issues are regarded as officially published after their release is announced to the [table of contents alert mailing list \(/journal/idr/toc-alert\)](#).
- You may [sign up for e-mail alerts \(/journal/idr/toc-alert\)](#) to receive table of contents of newly released issues.
- PDF is the official format for papers published in both, html and pdf forms. To view the papers in pdf format, click on the "PDF Full-text" link, and use the free [Adobe Reader \(https://www.adobe.com/\)](#) to open them.

Order results

Publication Date

Result details



Normal

Section

All Sections

Show export options 

Open Access Article

  (/2036-7449/12/11/8748/pdf?version=1602852140)

Leprosy Transmission in Endemic and Non-Endemic Areas Based on the Profile of Antibody Response of PGL-1 and PCR Detection of *Mycobacterium leprae* DNA from Nasal Swab among Healthy Children of East Java, Indonesia (/2036-7449/12/11/8748)

by [Dinar Adriaty](#) (<https://sciprofiles.com/profile/author/U281Z3lxbmhmNWYvUnd5WENSU1ZIS3REaVFyTW9JL3AvOXZ2YndsMUPaMD0=>),

[Cita Rosita SP](#) (<https://search?authors=Cita%20Rosita%20SP&orcid=>), [Iswahyudi](#) (<https://search?authors=Iswahyudi&orcid=>),

[Ratna Wahyuni](#) (<https://search?authors=Ratna%20Wahyuni&orcid=>), [Indropo Agusni](#) (<https://search?authors=Indropo%20Agusni&orcid=>) and

[Shinzo Izumi](#) (<https://search?authors=Shinzo%20Izumi&orcid=>).

Infect. Dis. Rep. **2020**, *12*(s1), 8748; <https://doi.org/10.4081/idr.2020.8748> (<https://doi.org/10.4081/idr.2020.8748>) - 07 Jul 2020

Cited by [3](#) (/2036-7449/12/11/8748#citedby) | Viewed by 738

Abstract Background: East Java has become one of the provinces that have higher prevalence of leprosy, especially in the coastal region. Environment has also influenced for leprosy transmission and early detection could reduce the incidence rate of new leprosy cases. Epidemiological studies of leprosy [...] [Read more.](#)

Open Access Article

  (/2036-7449/12/11/8747/pdf?version=1602852139)

Zoonotic and Other Gastrointestinal Parasites in Cats in Lumajang, East Java, Indonesia (/2036-7449/12/11/8747)

by [Izzu Ar-Rifqi Rabbani](#) (<https://search?authors=Izzu%20Ar-Rifqi%20Rabbani&orcid=>), [Fairuz Jihan Mareta](#) (<https://search?authors=Fairuz%20Jihan%20Mareta&orcid=>),

[Kusnoto](#) (<https://search?authors=Kusnoto&orcid=>), [Poedji Hastutiek](#) (<https://search?authors=Poedji%20Hastutiek&orcid=>),

[Nunuk Dyah Retno Lastuti](#) (<https://search?authors=Nunuk%20Dyah%20Retno%20Lastuti&orcid=>), [Mufasirin](#) (<https://search?authors=Mufasirin&orcid=>),

[Suharsono](#) (<https://search?authors=Suharsono&orcid=>), [I Komang Wiarsa Sardjana](#) (<https://search?authors=I%20Komang%20Wiarsa%20Sardjana&orcid=>),

[Moh. Sukmanadi](#) (<https://search?authors=Moh.%20Sukmanadi&orcid=>) and

[Lucia Tri Suwanti](#) (<https://sciprofiles.com/profile/author/bEd3NGNaSzBhQjhsWGInRGUvbXBjQVkyV2NCd0R2ZUxHMGJiY3B3VXhIST0=>).

Infect. Dis. Rep. **2020**, *12*(s1), 8747; <https://doi.org/10.4081/idr.2020.8747> (<https://doi.org/10.4081/idr.2020.8747>) - 07 Jul 2020

Cited by [2](#) (/2036-7449/12/11/8747#citedby) | Viewed by 616

Abstract Relationship between humans and cats has negative impact associates with zoonotic diseases. It is the reason why studies on the prevalence of gastrointestinal (GI) parasites in cats are important. Some of zoonotic GI parasites in cats are *Toxocara* spp., *Ancylostoma* sp., and *Toxoplasma* [...] [Read more.](#)

Open Access Article

  (/2036-7449/12/11/8746/pdf?version=1602852138)

Human Herpes Virus 8 Antibodies in HIV-Positive Patients in Surabaya, Indonesia (/2036-7449/12/11/8746)

by [Devi Oktafiani](#) (<https://search?authors=Devi%20Oktafiani&orcid=>), [Ni Luh Ayu Megasari](#) (<https://search?authors=Ni%20Luh%20Ayu%20Megasari&orcid=>),

[Elsa Fitriana](#) (<https://search?authors=Elsa%20Fitriana&orcid=>), [Nasronudin](#) (<https://search?authors=Nasronudin&orcid=>),

[Maria Inge Lusida](#) (<https://search?authors=Maria%20Inge%20Lusida&orcid=>) and [Soetjipto](#) (<https://sciprofiles.com/profile/1014105>)

Infect. Dis. Rep. **2020**, *12*(s1), 8746; <https://doi.org/10.4081/idr.2020.8746> (<https://doi.org/10.4081/idr.2020.8746>) - 07 Jul 2020

Viewed by 576

Abstract Background: Human herpesvirus 8 (HHV-8) infection is etiologically related to Kaposi's sarcoma. Antibodies directed against HHV-8 can be detected in 80%–95% of HIV-seropositive patients with KS. HHV-8 serological tests have been done in several countries in Southeast Asia such as Malaysia, and [...] [Read more.](#)

Open Access Article

  (/2036-7449/12/11/8745/pdf?version=1602852142)

Molecular Detection of a New Pathotype Enterohemorrhagic *Escherichia coli* (EAHEC) in Indonesia, 2015 (/2036-7449/12/11/8745)

by [Wahyu Setyarini](#) (<https://search?authors=Wahyu%20Setyarini&orcid=>),

[Dadik Raharjo](#) (<https://sciprofiles.com/profile/author/SIpzUUZUWU9OQIk4SUdmUWVxeC9vZVNqcUVYt1BTTngwdE9kK3hBK1k0az0=>),




[Radita Yuniar Arizandy](#) (<https://search?authors=Radita%20Yuniar%20Arizandy&orcid=>), [Zakaria Pamoengkas](#) (<https://search?authors=Zakaria%20Pamoengkas&orcid=>),

[Subijanto Marto Sudarmo](#) ([/search?authors=Subijanto%20Marto%20Sudarmo&orcid=](#)),

[Alpha Fardah Athiyah](#) ([/search?authors=Alpha%20Fardah%20Athiyah&orcid=](#)) and [Toshiro Shirakawa](#) ([/search?authors=Toshiro%20Shirakawa&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8745; <https://doi.org/10.4081/idr.2020.8745> (<https://doi.org/10.4081/idr.2020.8745>) - 07 Jul 2020

Viewed by 543

 [./toggle_desktop_layout_cookie](#)  

Abstract Enteroaggregative haemorrhagic *Escherichia coli* (*E. Coli*, EAHEC) has been identified as the agent responsible for one of the largest outbreaks of gastroenteritis and Haemolytic-uremic syndrome (HUS) that is transmitted through food in Germany in 2011. The hypervirulent pathotype has a unique combination [...]

[Read more.](#)

Open Access Article

  [./2036-7449/12/11/8744/pdf?version=1602852142](#)

Inhibition of Dengue Virus Serotype 2 in Vero Cells with [Cu(2,4,5-triphenyl-1H-imidazole)₂(H₂O)₂].Cl₂ ([/2036-7449/12/11/8744](#))

by

[Teguh H. Sucipto](#) (<https://sciprofiles.com/profile/author/TitJZF1rbU1UIURQYndFOVUyQW5IT2RvdSt3ZTdxSIQ4RWM3bnh5T1VjZE9meXoxbG5QTWk0TE14d>)

and

[Fahimah Martak](#) ([/search?authors=Fahimah%20Martak&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8744; <https://doi.org/10.4081/idr.2020.8744> (<https://doi.org/10.4081/idr.2020.8744>) - 07 Jul 2020

Cited by 3 ([/2036-7449/12/11/8744#citedby](#)) | Viewed by 565

Abstract Dengue fever and dengue hemorrhagic fever are transmitted to humans by the *Aedes aegypti* and *Aedes albopictus* mosquitoes, with an observed 30-fold increase in global incidence the last 50 years. Despite the tremendous efforts invested anti-dengue virus research, no clinically approved vaccine or [...]

[Read more.](#)

Open Access Article

  [./2036-7449/12/11/8743/pdf?version=1602852143](#)

Hyperbaric Hyperoxia Exposure in Suppressing Human Immunodeficiency Virus Replication: An Experimental *In Vitro* in Peripheral Mononuclear Blood Cells Culture ([/2036-7449/12/11/8743](#))

by [Retno Budiarti](#) (<https://sciprofiles.com/profile/author/VUVIT2NDY3hkWTRmWlgyRWxjREJoWgtUTVpmczVXR2VOdnJValBSR1IFUT0=>),

[Siti Qamariyah Khairunisa](#) ([/search?authors=Siti%20Qamariyah%20Khairunisa&orcid=](#)), [Nasronudin](#) ([/search?authors=Nasronudin&orcid=](#)),

[Kuntaman](#) ([/search?authors=Kuntaman&orcid=](#)) and [Guritno](#) ([/search?authors=Guritno&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8743; <https://doi.org/10.4081/idr.2020.8743> (<https://doi.org/10.4081/idr.2020.8743>) - 07 Jul 2020

Viewed by 613

Abstract Cellular immune has an important role in response HIV infection, which is attack the infected cells to activate signaling molecule. Hyperbaric Oxygen (HBO) worked as complementary treatment for HIV infection. The production of ROS and RNS molecules during hyperbaric exposure can affect gene [...]

[Read more.](#)

Open Access Article

  [./2036-7449/12/11/8740/pdf?version=1602852146](#)

Detection of Human Immunodeficiency Virus Type 1 Transmitted Drug Resistance among Treatment-Naive Individuals Residing in Jakarta, Indonesia ([/2036-7449/12/11/8740](#))

by [Siti Qamariyah Khairunisa](#) ([/search?authors=Siti%20Qamariyah%20Khairunisa&orcid=](#)),

[Ni Luh Ayu Megasari](#) ([/search?authors=Ni%20Luh%20Ayu%20Megasari&orcid=](#)), [Retno Pudji Rahayu](#) ([/search?authors=Retno%20Pudji%20Rahayu&orcid=](#)),

[Adiana Mutamsari Witaningrum](#) ([/search?authors=Adiana%20Mutamsari%20Witaningrum&orcid=](#)),

[Shuhe Ueda](#) ([/search?authors=Shuhe%20Ueda&orcid=](#)),

[Muhammad Qushai Yunifiar M](#) ([/search?authors=Muhhammad%20Qushai%20Yunifiar%20M&orcid=](#)),

[Dwi Wahyu Indriati](#) ([/search?authors=Dwi%20Wahyu%20Indriati&orcid=](#)), [Tomohiro Kotaki](#) ([/search?authors=Tomohiro%20Kotaki&orcid=](#)),

[Adria Rusli](#) ([/search?authors=Adria%20Rusli&orcid=](#)), [Nasronudin](#) ([/search?authors=Nasronudin&orcid=](#)) and

[Masanori Kameoka](#) (<https://sciprofiles.com/profile/704734>)



Infect. Dis. Rep. 2020, 12(s1), 8740; <https://doi.org/10.4081/idr.2020.8740> (<https://doi.org/10.4081/idr.2020.8740>) - 07 Jul 2020

Viewed by 603

Abstract The presence of transmitted drug resistance (TDR) in human immunodeficiency virus type 1 (HIV-1) infected individuals naive to antiretroviral therapy, may affect the effectiveness of treatment. Jakarta, the capital city of Indonesia, recorded the highest number of cumulative HIV infection cases [...]

[Read more.](#)

Open Access Article

  [./2036-7449/12/11/8734/pdf?version=1602852144](#)

The Antibacterial Activity of Tembelekan Leaf (*Lantana camara* L.) and Kopasanda Leaf (*Chromolaena odorata* L.) Extracts against *Staphylococcus aureus* ([/2036-7449/12/11/8734](#))

by [Sri Anggarini Rasyid](#) (<https://sciprofiles.com/profile/author/cFFKdkZWdU9oVDhIZE10L0MzUmdOWFVWYXZ4VWRPU2tkOTJPTINGR0c1cz0=>),

[Sugireng](#) ([/search?authors=Sugireng&orcid=](#)), [Ridwan Adi Surya](#) ([/search?authors=Ridwan%20Adi%20Surya&orcid=](#)),

[Sanatang](#) ([/search?authors=Sanatang&orcid=](#)), [Rosdarni](#) ([/search?authors=Rosdarni&orcid=](#)) and

[Wa Ode Rejeki Natalia](#) ([/search?authors=Wa%20Ode%20Rejeki%20Natalia&orcid=](#))



Infect. Dis. Rep. 2020, 12(s1), 8734; <https://doi.org/10.4081/idr.2020.8734> (<https://doi.org/10.4081/idr.2020.8734>) - 07 Jul 2020

Cited by 1 ([/2036-7449/12/11/8734#citedby](#)) | Viewed by 742

Abstract *Staphylococcus aureus* (*S. aureus*) is a round-shaped Gram-positive bacteria that caused infection in the human body. *S. aureus* infection can be inhibited by the use of antibiotics. However, these bacteria displayed resistance to some antibiotics. The purpose of this study is [...]

[Read more.](#)

Open Access Article

  [./2036-7449/12/11/8733/pdf?version=1602852147](#)

Gene Expression Tryptophan Aspartate Coat Protein in Determining Latent Tuberculosis Infection Using Immunocytochemistry and Real Time Polymerase Chain Reaction ([/2036-7449/12/11/8733](#))

by [Rebekah J. Setiabudi](#) (<https://sciprofiles.com/profile/author/WHBEOE5sNjNzSHpBZVpDVG5HUDIVRGR3bG43YXROVDZzNkpUNUNjcUZPVT0=>),

[Ni Made Mertaniasih](#) ([/search?authors=Ni%20Made%20Mertaniasih&orcid=](#)), [Muhammad Amin](#) ([/search?authors=Muhhammad%20Amin&orcid=](#)) and

[Wayan Tunas Artama](#) ([/search?authors=Wayan%20Tunas%20Artama&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8733; <https://doi.org/10.4081/idr.2020.8733> (<https://doi.org/10.4081/idr.2020.8733>) - 07 Jul 2020

Cited by 1 ((2036-7449/12/11/8733#citedby)) | Viewed by 591

Abstract *Background:* Tuberculosis (TB) remains a major cause of morbidity and mortality worldwide. Problem of Latent Tuberculosis Infection (LTBI) is increasing in number especially in countries with high TB incidence rate, such as Indonesia. Although not every LTBI will become active TB, if [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8730/pdf?version=1602852145\)](#)

In Vitro Anti-HIV Activity of Ethanol Extract from Gandarusa (*Justicia gendarussa* Burm. f) Leaves ((2036-7449/12/11/8730))

by [Ni Putu Ermi Hikmawanti](#) ([/search?authors=Ni%20Putu%20Ermi%20Hikmawanti&orcid=](#)).


[Prihartini Widiyanti](#) (<https://sciprofiles.com/profile/365342>) and [Bambang Prajogo EW](#) ([/search?authors=Bambang%20Prajogo%20EW&orcid=](#)).

Infect. Dis. Rep. 2020, 12(s1), 8730; <https://doi.org/10.4081/idr.2020.8730> (<https://doi.org/10.4081/idr.2020.8730>) - 07 Jul 2020

Cited by 1 ((2036-7449/12/11/8730#citedby)) | Viewed by 855

Abstract Anti retroviral drugs for HIV has problems with uncomfortable side effects and that endanger the lives of HIV sufferers. Several herbs have been empirically proven to have an effect on HIV eradication through inhibition of reverse transcriptase. One of such antiviral herbs is [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8723/pdf?version=1602852145\)](#)

The Practice of Complementary Feeding among Stunted Children under the Age of Two ((2036-7449/12/11/8723))

by [Inne Soesanti](#) (<https://sciprofiles.com/profile/author/T2N0eTROt2tHb0ZZSjIXSmt1dTcyQ3dOVUExby9PcXpMYTBRdFpwZFhRYz0=>),

[Pinky Saptandari](#) ([/search?authors=Pinky%20Saptandari&orcid=](#)), [Sri Adiningsih](#) ([/search?authors=Sri%20Adiningsih&orcid=](#)) and

[M. Bagus Qomaruddin](#) ([/search?authors=M.%20Bagus%20Qomaruddin&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8723; <https://doi.org/10.4081/idr.2020.8723> (<https://doi.org/10.4081/idr.2020.8723>) - 07 Jul 2020

Cited by 1 ((2036-7449/12/11/8723#citedby)) | Viewed by 672

Abstract Stunting is caused by chronic malnutrition and recurrent infectious diseases. Stunting in Pasongsongan Village affects less than 20% of the children under two, leading to problems in growth in early childhood. Ocean fish is the main animal products in this village on the [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8766/pdf?version=1602852130\)](#)

Hyperbaric Oxygen in Animal Model of Rheumatoid Arthritis: Analysis of HIF-1 α , ACPA and IL-17a ((2036-7449/12/11/8766))

by [Titut Harnanik](#) (<https://sciprofiles.com/profile/author/cktRT21tYmZXM0ntdWp0NTQ0QjdqclkaHBMUKYwbGFxa1laZFNsQXB5TT0=>),


[Sapta Prihartono](#) ([/search?authors=Sapta%20Prihartono&orcid=](#)) and [Tedy Juliandhy](#) ([/search?authors=Tedy%20Juliandhy&orcid=](#)).

Infect. Dis. Rep. 2020, 12(s1), 8766; <https://doi.org/10.4081/idr.2020.8766> (<https://doi.org/10.4081/idr.2020.8766>) - 06 Jul 2020

Cited by 1 ((2036-7449/12/11/8766#citedby)) | Viewed by 586

Abstract Antigen and collagen-induced arthritis (ACIA) is animal model of rheumatoid arthritis. The aim of this study was to identify the effect of different doses of hyperbaric oxygen (HBO) exposure in reducing inflammation on ACIA through analysis hypoxia inducible factor-1 α (HIF-1 α), anticyclic citrullinated peptide [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8765/pdf?version=1602852127\)](#)

The Relationship between Cadre's Capacity and Assessing to the Fast food Seller's Performance in Food Hygiene and Sanitation in Mokoau Primary Health Care, Kendari City ((2036-7449/12/11/8765))

by [Tasnim](#) (<https://sciprofiles.com/profile/author/bGZTRG1sbFVWTVF3TDBaamJ3WIBnMFBdyzFkcFU0N1R0dTI2NXRNY1Vkod0=>) and

[Maria Inge Lusida](#) ([/search?authors=Maria%20Inge%20Lusida&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8765; <https://doi.org/10.4081/idr.2020.8765> (<https://doi.org/10.4081/idr.2020.8765>) - 06 Jul 2020

Viewed by 563

Abstract Kendari city had serious issues related to emerging a hundred of fast food sellers in 2017, including in Mokoau Health Centre area. However, there were only two health environmental staffs in that health care centre. Therefore, involving cadres in the fast food control [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8763/pdf?version=1602852123\)](#)

Transformation of Infectious Diseases and the Indonesian National Military Health Research Collaboration in Supporting National Health Security ((2036-7449/12/11/8763))



by [Soroy Lardo](#) (<https://sciprofiles.com/profile/author/T3dONHIIImjBJS0x0NEUyYU5VTG85YndOUIpUSXBGbnhHk4YTJQQ2JrTT0=>)

Infect. Dis. Rep. 2020, 12(s1), 8763; <https://doi.org/10.4081/idr.2020.8763> (<https://doi.org/10.4081/idr.2020.8763>) - 06 Jul 2020

Cited by 1 ((2036-7449/12/11/8763#citedby)) | Viewed by 602

Abstract Transformation of infectious diseases is a dynamic movement of the spread of disease that is largely determined by the ability to understand geomedical maps, disease transmission and impacts on national security. Disease transformation is an order of infection that can be life threatening [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8762/pdf?version=1602852128\)](#)

Congenital Rubella Syndrome Profile of Audiology Outpatient Clinic in Surabaya, Indonesia ((2036-7449/12/11/8762))



by [Elsa Rosalina](#) ([/search?authors=Elsa%20Rosalina&orcid=](#)) and [Nyilo Purnami](#) (<https://sciprofiles.com/profile/1774245>)

Infect. Dis. Rep. 2020, 12(s1), 8762; <https://doi.org/10.4081/idr.2020.8762> (<https://doi.org/10.4081/idr.2020.8762>) - 06 Jul 2020

Viewed by 656

Abstract Congenital Rubella Syndrome (CRS) consists of hearing impairment, ophthalmology abnormalities, and congenital heart disease in children, resulting from rubella infection during pregnancy. Rubella vaccine has been implemented as national immunization program in Indonesia since 2017, and needed to be evaluated. This study aimed [...] [Read more](#).

Open Access Article

  [.\(2036-7449/12/11/8761/pdf?version=1602852128\)](#)


Study of Possibility Physical Interactions Antimalarial Combination Drugs ((2036-7449/12/11/8761))

by  **Timbul Partogi H. Simorangkir** (<https://sciprofiles.com/profile/author/eW9vUC95M085MzBvTW9Hc1M3MithNFYxVmROSWS9MUVZFY1IzWWpgZ3pTRT0=>), *Infect. Dis. Rep.* **2020**, 12(s1), 8761; <https://doi.org/10.4081/idr.2020.8761> (<https://doi.org/10.4081/idr.2020.8761>) - 06 Jul 2020
Viewed by 524   

Abstract Identification of solid state to investigate the possibility of physical interaction between Antimalarial Artemisinin Combination Treatment base Artesunate (AS) and Amodiaquine (AQ) by hot contact method Kofler, cold contact method (crystallization reaction) and binary phase diagram confirmation had been carried out. The results [...] [Read more.](#)

Open Access Article   [.\(/2036-7449/12/11/8760/pdf?version=1602852129\)](https://doi.org/10.4081/idr.2020.8760/pdf?version=1602852129)

Analysis of Lymphocyte T(CD4⁺) Cells Expression on Severe Early Childhood Caries and Free Caries (/2036-7449/12/11/8760)

by  **Muhammad Luthfi** (<https://sciprofiles.com/profile/author/SzkyQ3RzVGI6dFpJMWhCSnd3V3VUMIZ1TnZ4Sm9SYyt6TlhSYnJWc3N2ST0=>), **Priyawan Rachmadi** (<https://search?authors=Priyawan%20Rachmadi&orcid=>), **Aqsa Sjuhada Oki** (<https://search?authors=Aqsa%20Sjuhada%20Oki&orcid=>), **Retno Indrawati** (<https://search?authors=Retno%20Indrawati&orcid=>), **Agung Sosiawan** (<https://search?authors=Agung%20Sosiawan&orcid=>) and **Muhaimin Rifa'i** (<https://search?authors=Muhaimin%20Rifa'i%20E2%80%99i&orcid=>)

Infect. Dis. Rep. **2020**, 12(s1), 8760; <https://doi.org/10.4081/idr.2020.8760> (<https://doi.org/10.4081/idr.2020.8760>) - 06 Jul 2020

Viewed by 539

Abstract Early childhood caries (ECC) is still one of the many diseases found in children throughout the world. Cariogenic bacteria are a significant risk factor for ECC associated with early colonization and high levels of cariogenic microbes (*Streptococcus mutans*, *S. mutans*). Lymphocyte [...] [Read more.](#)

Open Access Review   [.\(/2036-7449/12/11/8738/pdf?version=1602852129\)](https://doi.org/10.4081/idr.2020.8738/pdf?version=1602852129)

Aviation Medicine Capacity on Facing Biological Threat in Indonesia Airports (/2036-7449/12/11/8738)

by  **Yuli Subiako** (<https://sciprofiles.com/profile/author/S1NZQ3VVUGw1RUczTHBLUmYzMVZoSnZRQ3JBUHIUNVZCdHRxUEFqYUEyST0=>),

Infect. Dis. Rep. **2020**, 12(s1), 8738; <https://doi.org/10.4081/idr.2020.8738> (<https://doi.org/10.4081/idr.2020.8738>) - 06 Jul 2020

Viewed by 596

Abstract Airports need high security procedures, especially for preventing outbreaks of infectious diseases spread by passenger and carried goods. Outbreaks of disease form real threat to national defense that can endanger national sovereignty, territorial integrity and national security. Biological agents that are dangerous sources [...] [Read more.](#)

Open Access Article   [.\(/2036-7449/12/11/8737/pdf?version=1602852136\)](https://doi.org/10.4081/idr.2020.8737/pdf?version=1602852136)

Analysis of Serum Glutamic Pyruvic Transaminase and Serum Glutamic Oxaloacetic Transaminase Levels in Tuberculosis Patients Who Are Undergoing Oat Treatment in Kendari City General Hospital, Kota Kendari, Indonesia (/2036-7449/12/11/8737)

by **Sri Anggarini Rasyid** (<https://search?authors=Sri%20Anggarini%20Rasyid&orcid=>), **Armayani** (<https://search?authors=Armayani&orcid=>), **Yuniati** (<https://search?authors=Yuniati&orcid=>) and

Tiara Mayang Pratiwi Lio (<https://sciprofiles.com/profile/author/NW1cHRKYjBxT0d6SVAxSDMwM2NzN2NjYk1I3T2REZW9Jb0x2UnZOND0=>)


Infect. Dis. Rep. **2020**, 12(s1), 8737; <https://doi.org/10.4081/idr.2020.8737> (<https://doi.org/10.4081/idr.2020.8737>) - 06 Jul 2020

Viewed by 632

Abstract In the treatment of tuberculosis (TB), the patient is generally directly given Anti Tuberculosis Drugs (Obat Anti Tuberculosis/OAT) without examining Serum Glutamic Pyruvic Transaminase (SGPT) and Serum Glutamic Oxaloacetic Transaminase (SGOT) to see whether or not there is liver damage before treatment. Because [...] [Read more.](#)

Open Access Article   [.\(/2036-7449/12/11/8736/pdf?version=1602852137\)](https://doi.org/10.4081/idr.2020.8736/pdf?version=1602852137)

The Efficacy of Photodynamic Inactivation with Laser Diode on *Staphylococcus aureus* Biofilm with Various Ages of Biofilm (/2036-7449/12/11/8736)

by  **Suryani Dyah Astuti** (<https://sciprofiles.com/profile/2313626>), **Hafidiana** (<https://search?authors=Hafidiana&orcid=>),

Riries Rulaningtyas (<https://search?authors=Riries%20Rulaningtyas&orcid=>), **Abdurachman** (<https://search?authors=Abdurachman&orcid=>),

Alfian P. Putra (<https://search?authors=Alfian%20P.%20Putra&orcid=>), **Samian** (<https://search?authors=Samian&orcid=>) and

Deny Arifianto (<https://search?authors=Deny%20Arifianto&orcid=>).

Infect. Dis. Rep. **2020**, 12(s1), 8736; <https://doi.org/10.4081/idr.2020.8736> (<https://doi.org/10.4081/idr.2020.8736>) - 06 Jul 2020

Cited by 4 ([/2036-7449/12/11/8736#citedby](https://doi.org/10.4081/idr.2020.8736#cite)) | Viewed by 650

Abstract Biofilms are able to cause microorganisms to be 80% more resistant to antibiotics. The extracellular polymeric substance (EPS) in biofilm functions to protect bacteria, making it difficult for antibiotics to penetrate the biofilm layer. This study aims to determine the effective- ness of [...] [Read more.](#)

Open Access Article   [.\(/2036-7449/12/11/8731/pdf?version=1602852137\)](https://doi.org/10.4081/idr.2020.8731/pdf?version=1602852137)

Performance Comparison of Two Malaria Rapid Diagnostic Test with Real Time Polymerase Chain Reaction and Gold Standard of Microscopy Detection Method (/2036-7449/12/11/8731)

by  **Puspa Wardhani** (<https://sciprofiles.com/profile/1193595>), **Trieva Verawaty Butarbutar** (<https://search?authors=Trieva%20Verawaty%20Butarbutar&orcid=>),

Christophorus Oetama Adiatmaja (<https://search?authors=Christophorus%20Oetama%20Adiatmaja&orcid=>),

Amarensi Milka Betaubun (<https://search?authors=Amarensi%20Milka%20Betaubun&orcid=>), **Nur Hamidah** (<https://search?authors=Nur%20Hamidah&orcid=>) and

Aryati (<https://search?authors=Aryati&orcid=>).

Infect. Dis. Rep. **2020**, 12(s1), 8731; <https://doi.org/10.4081/idr.2020.8731> (<https://doi.org/10.4081/idr.2020.8731>) - 06 Jul 2020

Cited by 4 ([/2036-7449/12/11/8731#citedby](https://doi.org/10.4081/idr.2020.8731#cite)) | Viewed by 688

Abstract *Background:* The diagnostic test for malaria is mostly based on Rapid Diagnostic Test (RDT) and detection by microscopy. Polymerase Chain Reaction (PCR) is also a sensitive detection method that can be considered as a diagnostic tool. The outcome of malaria microscopy detection [...] [Read more.](#)

Open Access Article   [.\(/2036-7449/12/11/8728/pdf?version=1602852136\)](https://doi.org/10.4081/idr.2020.8728/pdf?version=1602852136)

Analysis of Tuberculosis Program Management in Primary Health Care (/2036-7449/12/11/8728)

by [Ni Njoman Juliasih](https://sciprofiles.com/profile/author/bEVXNU5PY0UwK3g3NVB2bVVMWVBtSmIIIV3ZDcUtrWkM3b1g0VkhNmpGQT0=) (<https://sciprofiles.com/profile/author/bEVXNU5PY0UwK3g3NVB2bVVMWVBtSmIIIV3ZDcUtrWkM3b1g0VkhNmpGQT0=>),
[Soedarsono](#) ([/search?authors=Soedarsono&orcid=](#)) and [Reny Mareta Sari](#) ([/search?authors=Reny%20Mareta%20Sari&orcid=](#)).

Infect. Dis. Rep. 2020, 12(s1), 8728; <https://doi.org/10.4081/idr.2020.8728> (<https://doi.org/10.4081/idr.2020.8728>) - 06 Jul 2020

Cited by 1 ([/2036-7449/12/11/8728#citedby](#)) | Viewed by 552

Abstract Background: This study discusses the analysis of Tuberculosis (TB) program management at the Perak Timur Primary Health Care (PHC) and the Sawahan PHC in Surabaya. Early detection and adequate treatment can prevent transmission and improve control programs. **Objective:** This study aims [...]. [Read more.](#)

Open Access Article

[./2036-7449/12/11/8727/pdf?version=1602852132](#)

The Spatial Analysis of Extrapulmonary Tuberculosis Spreading and Its Interactions with Pulmonary Tuberculosis in Samarinda, East Kalimantan, Indonesia ([/2036-7449/12/11/8727](#))

by [Nataniel Tandirogang](https://sciprofiles.com/profile/author/UHJkRnZJQk9qSEt6OEItSjhrS2FWVFI6YUJ4RmlqckY4aDNvb3lgMk41QT0=) (<https://sciprofiles.com/profile/author/UHJkRnZJQk9qSEt6OEItSjhrS2FWVFI6YUJ4RmlqckY4aDNvb3lgMk41QT0=>),

[Wirdah Ulfahaini Mappalotteng](#) ([/search?authors=Wirdah%20Ulfahaini%20Mappalotteng&orcid=](#)),

[Eko Nugroho Raharjo](#) ([/search?authors=Eko%20Nugroho%20Raharjo&orcid=](#)), [Swandari Paramitai](#) ([/search?authors=Swandari%20Paramitai&orcid=](#)),

[Dewi Embong Bulan](#) ([/search?authors=Dewi%20Embong%20Bulan&orcid=](#)) and [Yadi Yasir](#) ([/search?authors=Yadi%20Yasir&orcid=](#)).

Infect. Dis. Rep. 2020, 12(s1), 8727; <https://doi.org/10.4081/idr.2020.8727> (<https://doi.org/10.4081/idr.2020.8727>) - 06 Jul 2020

Cited by 2 ([/2036-7449/12/11/8727#citedby](#)) | Viewed by 634

Abstract Background: Extrapulmonary Tuberculosis (EPTB) is an infectious disease that affects tissue outside the lungs. EPTB patients cannot be source of infection, therefore the findings in the community indicate that there are still active pulmonary TB patients acting as a source of [...]. [Read more.](#)

Open Access Article

[./2036-7449/12/11/8726/pdf?version=1602852135](#)

Expression of Fibroblast Cells after Extraction of Wistar Rat Teeth after Topical Application of Okra Fruit (*Abelmoschus esculentus*) Gel ([/2036-7449/12/11/8726](#))

by [Muhammad Luthfi](https://sciprofiles.com/profile/author/SzkyQ3RzVGI6dFpJMWhCSnd3V3VUMIZ1TnZ4Sm9SYyt6TlHSYnJWc3N2ST0=) (<https://sciprofiles.com/profile/author/SzkyQ3RzVGI6dFpJMWhCSnd3V3VUMIZ1TnZ4Sm9SYyt6TlHSYnJWc3N2ST0=>),

[Wisnu Setyari Juliastuti](#) ([/search?authors=Wisnu%20Setyari%20Juliastuti&orcid=](#)),

[Yuniar Aliyah Risky](#) ([/search?authors=Yuniar%20Aliyah%20Risky&orcid=](#)), [Elvina Hasna Wijayanti](#) ([/search?authors=Elvina%20Hasna%20Wijayanti&orcid=](#)),

[Aisyah Ekasari Rachmawati](#) ([/search?authors=Aisyah%20Ekasari%20Rachmawati&orcid=](#)) and

[Nidya Pramesti Olifia Asyhari](#) ([/search?authors=Nidya%20Pramesti%20Olifia%20Asyhari&orcid=](#)).

Infect. Dis. Rep. 2020, 12(s1), 8726; <https://doi.org/10.4081/idr.2020.8726> (<https://doi.org/10.4081/idr.2020.8726>) - 06 Jul 2020

Cited by 1 ([/2036-7449/12/11/8726#citedby](#)) | Viewed by 583

Abstract Background: Tooth extraction is a dental procedure for removing a teeth from the alveolar bone socket. The tooth extraction process causes damage to hard tissue and soft tissue, so the body will respond physiologically to heal the wound. The wound healing process [...]. [Read more.](#)

Open Access Case Report

[./2036-7449/12/11/8725/pdf?version=1602852134](#)

A Case of Deep Vein Thrombosis Associated with Methicillin Sensitive *Staphylococcal aureus* Genu Septic Arthritis ([/2036-7449/12/11/8725](#))

by [Lyndia Effendy](https://sciprofiles.com/profile/author/eHU4TGZEbXl2cWVUZjBKVjREc0t2TDN5RVM4RnplNmF6dGNOZE5sQUNwYz0=) (<https://sciprofiles.com/profile/author/eHU4TGZEbXl2cWVUZjBKVjREc0t2TDN5RVM4RnplNmF6dGNOZE5sQUNwYz0=>),

[Metta Octora](#) ([/search?authors=Metta%20Octora&orcid=](#)) and [Deby Kusumaningrum](#) ([/search?authors=Deby%20Kusumaningrum&orcid=](#)).

Infect. Dis. Rep. 2020, 12(s1), 8725; <https://doi.org/10.4081/idr.2020.8725> (<https://doi.org/10.4081/idr.2020.8725>) - 06 Jul 2020

Viewed by 583

Abstract Septic arthritis caused by bacteria Gram positive *Staphylococcus aureus* (*S. aureus*) infection has been widely reported from Europe and the United States. This case presentation reported the first *Staphylococcal* septic arthritis, preceded by systemic erythroderma skin lesions from aregional hospital in [...]. [Read more.](#)

Open Access Case Report

[./2036-7449/12/11/8724/pdf?version=1602852127](#)

An Adult Patient with Suspected of Monkeypox Infection Differential Diagnosed to Chickenpox ([/2036-7449/12/11/8724](#))

by [Junis Tumewu](#) ([/search?authors=Junis%20Tumewu&orcid=](#)), [Maya Wardiana](#) ([/search?authors=Maya%20Wardiana&orcid=](#)),

[Evy Ervianty](#) ([/search?authors=Evy%20Ervianty&orcid=](#)), [Sawitri](#) ([/search?authors=Sawitri&orcid=](#)), [Rahmadewi](#) ([/search?authors=Rahmadewi&orcid=](#)),

[Astindari](#) ([/search?authors=Astindari&orcid=](#)), [Sylvia Anggraeni](#) ([/search?authors=Sylvia%20Anggraeni&orcid=](#)),

[Yuri Widia](#) ([/search?authors=Yuri%20Widia&orcid=](#)), [Mochamad Amin](#) ([/search?authors=Mochamad%20Amin&orcid=](#)),

[Siti Rochmanah Oktaviani Sulichah](#) ([/search?authors=Siti%20Rochmanah%20Oktaviani%20Sulichah&orcid=](#)),

[K. Kuntaman](#) ([/search?authors=K.%20Kuntaman&orcid=](#)), [Juniastuti](#) ([/search?authors=Juniastuti&orcid=](#)) and

[Maria Inge Lusida](#) ([/search?authors=Maria%20Inge%20Lusida&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8724; <https://doi.org/10.4081/idr.2020.8724> (<https://doi.org/10.4081/idr.2020.8724>) - 06 Jul 2020

Cited by 2 ([/2036-7449/12/11/8724#citedby](#)) | Viewed by 894

Abstract Background: Monkeypox is a zoonosis. The disease has a similar appearance to chickenpox caused by the varicella-zoster virus (VZV). On May 9th 2019, there was one laboratory-confirmed case of monkeypox reported in Singapore. A man was also suspected of having monkeypox on [...]. [Read more.](#)

Open Access Article

[./2036-7449/12/11/8722/pdf?version=1602852134](#)

The Forming of Bacteria Biofilm from *Streptococcus mutans* and *Aggregatibacter actinomycetemcomitans* as a Marker for Early Detection in Dental Caries and Periodontitis ([/2036-7449/12/11/8722](#))

by [Indah Listiana Kriswandini](https://sciprofiles.com/profile/author/cTZHc3ozbWd3emRvbzZlajBxVGI1eDFuWmJaWW13RmhTS1NqZmlWZ0xkbz0=) (<https://sciprofiles.com/profile/author/cTZHc3ozbWd3emRvbzZlajBxVGI1eDFuWmJaWW13RmhTS1NqZmlWZ0xkbz0=>),

[I. Diyatri](#) ([/search?authors=I.%20Diyatri&orcid=](#)), [Tantiana](#) ([/search?authors=Tantiana&orcid=](#)), [P. Nuraini](#) ([/search?authors=P.%20Nuraini&orcid=](#)),

[T. Berniyanti](#) ([/search?authors=T.%20Berniyanti&orcid=](#)), [I. A. Putri](#) ([/search?authors=I.%20A.%20Putri&orcid=](#)) and



[P. N. B. N. Tyas](#) ([/search?authors=P.%20N.%20B.%20N.%20Tyas&orcid=](#))

Infect. Dis. Rep. 2020, 12(s1), 8722; <https://doi.org/10.4081/idr.2020.8722> (<https://doi.org/10.4081/idr.2020.8722>) - 06 Jul 2020

Cited by 4 ([/2036-7449/12/11/8722#citedby](#)) | Viewed by 607

Abstract Background: This is an initial study of the biofilm of *Streptococcus mutans* (*S. mutans*) and *Aggregatibacter actinomycetemcomitans* (*A.a*). *S. mutans* and *A.a* are bacteria that cause infection diseases in the oral cavity. These bacteria have the ability to [...] [Read more](#).

Open Access Article

  [./2036-7449/12/11/8721/pdf?version=1602852133](#)

Alpha-Tocopherol Improves Sperm Quality by Regulate Intracellular Ca²⁺ Intensity (Influx/Efflux) of Simmental Bull Cattle Sperm (2036-7449/12/11/8721)

by  [Hermin Ratnani \(https://sciprofiles.com/profile/author/QjJoQUFtdE15RUJocEJFSkZ5TGlyb1BBZCt4L1pNYjUyVFJmbml5dVQyND0=\)](#),

[T. W. Suprayogi \(/search?authors=T.%20W.%20Suprayogi&orcid=\)](#), [T. Sardjito \(/search?authors=T.%20Sardjito&orcid=\)](#),


[S. Susilowati \(/search?authors=S.%20Susilowati&orcid=\)](#) and [S. Azura \(/search?authors=S.%20Azura&orcid=\)](#)

Infect. Dis. Rep. 2020, 12(s1), 8721; <https://doi.org/10.4081/idr.2020.8721> (<https://doi.org/10.4081/idr.2020.8721>) - 06 Jul 2020

Viewed by 544

Abstract Background: The effects of α -tocopherol on intracellular Ca²⁺ intensity in semen cryopreservation by regulate intracellular Ca²⁺ intensity have not been reported yet. **Objective:** The research was conducted to evaluate the effect of supplementation α -tocopherol into egg yolk skim milk extender on [...] [Read more](#).

Open Access Article

  [./2036-7449/12/11/8720/pdf?version=1602852129](#)

The Mechanism of the Effects of Monascus jmbA Rice on Increased Platelet Count in Wistar Rats Infected with Dengue Virus Serotype 3 (2036-7449/12/11/8720)



by  [Erwin Astha Triyono \(https://sciprofiles.com/profile/author/SitaRWE0eHZSazR4VnJpU3Zsam1WZmM4MWdRRhNSTZienYvRFREY2ZRYz0=\)](#)

Infect. Dis. Rep. 2020, 12(s1), 8720; <https://doi.org/10.4081/idr.2020.8720> (<https://doi.org/10.4081/idr.2020.8720>) - 06 Jul 2020

Viewed by 526

Abstract Background: Several traditional medicines have been developed among communities as part of the efforts to improve thrombocytopenia in patients with Dengue virus infection (DVI). Among those efforts is the administration of Monascus jmbA rice (MJR), which is rice fermented with *Monascus purpureus*. The [...] [Read more](#).

Open Access Article

  [./2036-7449/12/11/8719/pdf?version=1602852123](#)

Added Value of Bleach for Tuberculosis Microscopy Diagnostic in Limited Resources Setting (2036-7449/12/11/8719)

by  [Erike A. Suwarsono \(https://sciprofiles.com/profile/author/bC84d21hVxp3Nkp0RGNHREd0RWZCcFRjd1d4WlpaZEpwNzlhNU9GNm9DRT0=\)](#) and



[Siti Nur Aisyah Jauharoh \(/search?authors=Siti%20Nur%20Aisyah%20Jauharoh&orcid=\)](#)

Infect. Dis. Rep. 2020, 12(s1), 8719; <https://doi.org/10.4081/idr.2020.8719> (<https://doi.org/10.4081/idr.2020.8719>) - 06 Jul 2020

Viewed by 631

Abstract Indonesia is one of the high burden tuberculosis (TB) countries. The utilization of molecular diagnostic has been setting over the country, however there are still a lot of remote areas that only depend on microscopic smear. Bleach might be used to increase the [...] [Read more](#).

Open Access Article

  [./2036-7449/12/11/8718/pdf?version=1602852125](#)

Profile of Congenital Rubella Syndrome in Soetomo General Hospital Surabaya, Indonesia (2036-7449/12/11/8718)



by [Dionisia Vidya Paramita \(/search?authors=Dionisia%20Vidya%20Paramita&orcid=\)](#) and  [Nyilo Purnami \(https://sciprofiles.com/profile/1774245\)](#)

Infect. Dis. Rep. 2020, 12(s1), 8718; <https://doi.org/10.4081/idr.2020.8718> (<https://doi.org/10.4081/idr.2020.8718>) - 06 Jul 2020

Viewed by 515

Abstract Background: Definition of Congenital Ruben Syndrome (CRS): a disease caused by rubella virus infection. Routine surveil- lance of CRS is part of a government pro- gram in documenting the incidence of CRS so that infants with CRS are diagnosed promptly and receive [...] [Read more](#).

Open Access Article

  [./2036-7449/12/11/8717/pdf?version=1602852125](#)

Regulation of Mitogen-Activated Protein Kinase Signaling Pathway and Proinflammatory Cytokines by Ursolic Acid in Murine Macrophages Infected with *Mycobacterium avium* (2036-7449/12/11/8717)

by  [Dian Ayu Eka Pitaloka \(https://sciprofiles.com/profile/382385\)](#), [Andrea M. Cooper \(/search?authors=Andrea%20M.%20Cooper&orcid=\)](#),

[Aluicia Anita Artarini \(/search?authors=Aluicia%20Anita%20Artarini&orcid=\)](#), [Sophi Damayanti \(/search?authors=Sophi%20Damayanti&orcid=\)](#) and



[Elin Yulinah Sukandar \(/search?authors=Elin%20Yulinah%20Sukandar&orcid=\)](#)

Infect. Dis. Rep. 2020, 12(s1), 8717; <https://doi.org/10.4081/idr.2020.8717> (<https://doi.org/10.4081/idr.2020.8717>) - 06 Jul 2020

Cited by 4 ([2036-7449/12/11/8717#citedby](#)) | Viewed by 554

Abstract *Mycobacterium avium*, one of the closest relatives of *Mycobacterium tuberculosis* (MTB), offers an advantage in studying MTB because of its tuberculosis-like effect in humans and host immune tolerance. This study examined the antimycobacterial action of ursolic acid and its regulation in macrophages [...] [Read more](#).

Open Access Article

  [./2036-7449/12/11/8716/pdf?version=1602852124](#)

The Use of Touch DNA Analysis in Forensic Identification Focusing on Short Tandem Repeat-Combined DNA Index System Loci THO1, CSF1PO and TPOX (2036-7449/12/11/8716)

by  [Ahmad Yudianto \(https://sciprofiles.com/profile/author/YVJnSGMzZjNkTmxkU1Zzc2RIL3BXM3A2RUVicEdOVFRtQmJZM3puK1Fjcz0=\)](#),

[Indah Nuraini M \(/search?authors=Indah%20Nuraini%20M&orcid=\)](#), [Abdul Hadi Furqoni \(/search?authors=Abdul%20Hadi%20Furqoni&orcid=\)](#),

[Simon Martin Manyanza Nzilibili \(/search?authors=Simon%20Martin%20Manyanza%20Nzilibili&orcid=\)](#) and

[Pudji Harjanto \(/search?authors=Pudji%20Harjanto&orcid=\)](#)

Infect. Dis. Rep. 2020, 12(s1), 8716; <https://doi.org/10.4081/idr.2020.8716> (<https://doi.org/10.4081/idr.2020.8716>) - 06 Jul 2020

Cited by 2 ([2036-7449/12/11/8716#citedby](#)) | Viewed by 586

Abstract Forensic identification through DNA analysis is an accurate diagnostic tool. Deoxyribonucleic Acid (DNA) analysis is via DNA repetitive regions with less than 1 kb base size is called 'microsatellite' or Short Tandem Repeat (STR). At the crime scene, the perpetrator's skin may accidentally [...] [Read more](#).

Show export options 

Displaying articles 1-33

[Infect. Dis. Rep. \(/journal/idr\)](#), EISSN 2036-7449, Published by MDPI [Disclaimer](#)

[RSS \(/rss/journal/idr\)](#) [Content Alert \(/journal/idr/toc-alert\)](#)

Further Information

[Article Processing Charges \(/apc\)](#)

[Pay an Invoice \(/about/payment\)](#)

[Open Access Policy \(/openaccess\)](#)

[Contact MDPI \(/about/contact\)](#)

[Jobs at MDPI \(https://careers.mdpi.com\)](https://careers.mdpi.com)

Guidelines

[For Authors \(/authors\)](#)

[For Reviewers \(/reviewers\)](#)

[For Editors \(/editors\)](#)

[For Librarians \(/librarians\)](#)

[For Publishers \(/publishing_services\)](#)

[For Societies \(/societies\)](#)

[For Conference Organizers \(/conference_organizers\)](#)

MDPI Initiatives

[Sciforum \(https://sciforum.net\)](https://sciforum.net)

[MDPI Books \(https://www.mdpi.com/books\)](https://www.mdpi.com/books)

[Preprints \(https://www.preprints.org\)](https://www.preprints.org)

[Scilit \(https://www.scilit.net\)](https://www.scilit.net)

[SciProfiles \(https://sciprofiles.com\)](https://sciprofiles.com)

[Encyclopedia \(https://encyclopedia.pub\)](https://encyclopedia.pub)

[JAMS \(https://jams.pub\)](https://jams.pub)

[Proceedings Series \(/about/proceedings\)](#)

Follow MDPI

[LinkedIn \(https://www.linkedin.com/company/mdpi\)](https://www.linkedin.com/company/mdpi)

[Facebook \(https://www.facebook.com/MDPIOpenAccessPublishing\)](https://www.facebook.com/MDPIOpenAccessPublishing)

[Twitter \(https://twitter.com/MDPIOpenAccess\)](https://twitter.com/MDPIOpenAccess)

Subscribe to receive issue release
notifications and newsletters from
MDPI journals

Select options ▼

Enter your email address...

Subscribe

[Sign In / Sign Up \(/user/login\)](#)

[Submit \(https://susy.mdpi.com/user/manuscripts/upload?journal=idr\)](https://susy.mdpi.com/user/manuscripts/upload?journal=idr)

Search for Articles:

Advanced Search

[Journals \(/about/journals\)](#) / [Infectious Disease Reports \(/journal/idr\)](#) / [Editorial Board \(/journal/idr/editors\)](#)



[\(/journal/idr\)](#)



<https://www.ncbi.nlm.nih.gov/pubmed/?term=2036-7449>

[Submit to Infectious Disease Reports \(https://susy.mdpi.com/user/manuscripts/upload?form\[journal_id\]=469\)](https://susy.mdpi.com/user/manuscripts/upload?form[journal_id]=469)

[Review for Infectious Disease Reports \(https://susy.mdpi.com/volunteer/journals/review\)](https://susy.mdpi.com/volunteer/journals/review)

Journal Menu

Journal Menu

- [Infectious Disease Reports Home \(/journal/idr\)](#)
- [Aims & Scope \(/journal/idr/about\)](#)
- [Editorial Board \(/journal/idr/editors\)](#)
- [Reviewer Board \(/journal/idr/submission_reviewers\)](#)
- [Instructions for Authors \(/journal/idr/instructions\)](#)
- [Special Issues \(/journal/idr/special_issues\)](#)
- [Sections \(/journal/idr/sections\)](#)
- [Article Processing Charge \(/journal/idr/apc\)](#)
- [Indexing & Archiving \(/journal/idr/indexing\)](#)
- [Most Cited & Viewed \(/journal/idr/most_cited\)](#)
- [Journal Statistics \(/journal/idr/stats\)](#)
- [Journal History \(/journal/idr/history\)](#)
- [Editorial Office \(/journal/idr/editorial_office\)](#)

Journal Browser

Journal Browser

- [> Forthcoming issue \(/2036-7449/14/5\)](#)
- [> Current issue \(/2036-7449/14/4\)](#)

- [Vol. 14 \(2022\) \(/2036-7449/14\)](#)
- [Vol. 13 \(2021\) \(/2036-7449/13\)](#)
- [Vol. 12 \(2020\) \(/2036-7449/12\)](#)

Volumes not published by MDPI

- [Vol. 11 \(2019\) \(/2036-7449/11\)](#)
- [Vol. 10 \(2018\) \(/2036-7449/10\)](#)
- [Vol. 9 \(2017\) \(/2036-7449/9\)](#)
- [Vol. 8 \(2016\) \(/2036-7449/8\)](#)

- [Vol. 7 \(2015\) \(/2036-7449/7\)](#)
- [Vol. 6 \(2014\) \(/2036-7449/6\)](#)
- [Vol. 5 \(2013\) \(/2036-7449/5\)](#)
- [Vol. 4 \(2012\) \(/2036-7449/4\)](#)



Editorial Board

- [Editorial Board](#)
- [Viral Infections Section \(/journal/idr/sectioneditors/Viral_Infections\)](/journal/idr/sectioneditors/Viral_Infections)
- [Bacterial Diseases Section \(/journal/idr/sectioneditors/Bacterial_Diseases\)](/journal/idr/sectioneditors/Bacterial_Diseases)
- [Tuberculosis and Mycobacteriosis Section \(/journal/idr/sectioneditors/Tuberculosis_Mycobacteriosis\)](/journal/idr/sectioneditors/Tuberculosis_Mycobacteriosis)
- [Fungal Infections Section \(/journal/idr/sectioneditors/Fungal_Infections\)](/journal/idr/sectioneditors/Fungal_Infections)
- [HIV-AIDS Section \(/journal/idr/sectioneditors/HIV-AIDS\)](/journal/idr/sectioneditors/HIV-AIDS)
- [Parasitological Diseases Section \(/journal/idr/sectioneditors/Parasitological_Diseases\)](/journal/idr/sectioneditors/Parasitological_Diseases)
- [Healthcare Associated Infections Section \(/journal/idr/sectioneditors/Healthcare_Associated_Infections\)](/journal/idr/sectioneditors/Healthcare_Associated_Infections)
- [Migrants and Infections Section \(/journal/idr/sectioneditors/Migrants_Infections\)](/journal/idr/sectioneditors/Migrants_Infections)
- [Infection Prevention and Control Section \(/journal/idr/sectioneditors/IPC\)](/journal/idr/sectioneditors/IPC)
- [Antimicrobial Stewardship Section \(/journal/idr/sectioneditors/Antimicrobial_Stewardship\)](/journal/idr/sectioneditors/Antimicrobial_Stewardship)
- [Immunology and Vaccines Section \(/journal/idr/sectioneditors/Immunology_Vaccines\)](/journal/idr/sectioneditors/Immunology_Vaccines)
- [Neglected Tropical Diseases Section \(/journal/idr/sectioneditors/neglected_tropical_diseases\)](/journal/idr/sectioneditors/neglected_tropical_diseases)

Editors (4)



Dr. Nicola Petrosillo

Website (https://healthmanagement.org/viewProfile/92977/Nicola_Petrosillo). **SciProfiles** (<https://sciprofiles.com/profile/163137>).

Editor-in-Chief

Infection Prevention & Control and Infectious Disease Unit, University Hospital "Campus Bio-Medico", 00128 Rome, Italy

Interests: severe infections; infective endocarditis; emerging infections; infections in transplanted patients

Special Issues, Collections and Topics in MDPI journals



Prof. Dr. Alessandro Bartoloni *

Website (<https://www.unifi.it/p-doc2-2017-0-A-2b32392c3b28-0.html>). **SciProfiles** (<https://sciprofiles.com/profile/461183>).

Section Editor-in-Chief

Department of Experimental and Clinical Medicine, University of Florence, 50134 Florence, Italy

Interests: infectious diseases; neglected tropical diseases; antibiotic resistance; tropical medicine



Prof. Dr. Giovanni Sotgiu *

Website (<https://www.uniss.it/ugov/person/1585>) **SciProfiles** (<https://sciprofiles.com/profile/581687>)

Section Editor-in-Chief

Clinical Epidemiology and Medical Statistics Unit, Department of Medical, Surgical and Experimental Sciences, University of Sassari, Sassari, Italy

Interests: tuberculosis; NTM; respiratory infections; epidemiology; medical statistics

* Section: Tuberculosis and Mycobacteriosis

Special Issues, Collections and Topics in MDPI journals



Dr. Nicola Luigi Bragazzi *

Website (<https://liam.lab.yorku.ca/person/dr-nicola-luigi-bragazzi/>) **SciProfiles** (<https://sciprofiles.com/profile/34026>)

Section Editor-in-Chief

Department of Mathematics and Statistics, University of York, Toronto, ON M3J 1P3, Canada

Interests: public health; epidemiology; infectious disorders; vaccination

* Section: Immunology and Vaccines

Special Issues, Collections and Topics in MDPI journals

Editorial Board Members (36)

Filter Editorial Board Members

Filter



Dr. Bruno Arcà

Website (<https://dspmi.uniroma1.it/node/5681>) **SciProfiles** (<https://sciprofiles.com/profile/1865777>)

Department of Public Health and Infectious Diseases - Division of Parasitology, Sapienza University of Rome, P.le Aldo Moro 5, 00185 Rome, Italy

Interests: vector molecular biology; saliva of blood feeding insects; mosquitoes; transcriptomics; malaria; non-coding RNAs; gene expression



Prof. Dr. Matteo Bassetti

★ (<https://recognition.webofscience.com/awards/highly-cited/2021/>) **Website** (<https://www.htide.net/>) **SciProfiles** (<https://sciprofiles.com/profile/955038>)

1. Infectious Diseases, Department of Health Science, University of Genoa, Genoa, Italy

2. Infectious Diseases Clinic, Policlinico San Martino Hospital – IRCCS, Genoa, Italy

3. Italian Society of Antiinfective Therapy (SITA), Genoa, Italy

4. ESCMID Critically Ill Patients Study Group (ESGCIP), Genoa, Italy

Interests: antimicrobial resistance; new antibiotics; viral infections (including COVID-19 and HIV); infections in critically ill patients

Special Issues, Collections and Topics in MDPI journals

Special Issue in **Vaccines: The Role of Vaccines in Antimicrobial Stewardship Program to Reduce Resistance**

(/journal/vaccines/special_issues/antibiotic_consumption)

Special Issue in **Vaccines: COVID-19 Vaccines: The Way Back to Normal Life Is Now Marked** (/journal/vaccines/special_issues/knowledge_vaccines)

Special Issue in **Antibiotics: Antibiotic Resistant Pathogens in Hospital** (/journal/antibiotics/special_issues/antibiotic_resistance_hospital)



Prof. Dr. Adrian Brink

Website (<http://www.medmicro.uct.ac.za/mmb/academicstaff>)

Faculty of Health Sciences, University of Cape Town, Cape Town 7925, South Africa

Interests: the mechanism of resistance as a confounder in antibiotic stewardship; the impact of antibiotics on the gastro-intestinal microbiome; design and implementation of large-scale antibiotic stewardship and infection prevention and control strategies in middle-income countries; the epidemiology of antibiotic-resistant nosocomial infections



Dr. Zahid Ahmad Butt

Website (<https://uwaterloo.ca/public-health-and-health-systems/people-profiles/zahid-butt>) **SciProfiles** (<https://sciprofiles.com/profile/1062057>)

School of Public Health and Health Systems, University of Waterloo, 200 University Avenue West, Waterloo, ON N2L 3G1, Canada

Interests: HIV/HCV/HBV coinfections; vaccine preventable diseases; communicable and non-communicable disease syndemics; systems biology; network analysis of complex data

Special Issues, Collections and Topics in MDPI journals

Special Issue in *International Journal of Environmental Research and Public Health: Vaccine Hesitancy and COVID-19*

([/journal/ijerph/special_issues/Vaccine_Hesitancy](https://journal/ijerph/special_issues/Vaccine_Hesitancy)).



Prof. Dr. Maria Chironna

Website (<https://www.uniba.it/ricerca/dipartimenti/scienzebiomediche/personale-del-dipartimento/personale-docente/chironna-maria/Maria%20Chironna>)

SciProfiles (<https://sciprofiles.com/profile/1127142>)

Hygiene Section, Department of Biomedical Sciences and Human Oncology, University of Bari, 70121 Bari, Italy

Interests: molecular epidemiology; health surveillance and promotion; influenza; influenza vaccination; HIV; sexually transmitted infections; HAV; viral hepatitis infectious disease epidemiology; field epidemiology; outbreak investigation; immunizations; pneumococcal vaccination; epidemiology; antibiotic resistance; vaccine preventable infections; foodborne diseases; vector-borne disease; effectiveness of vaccines; communication on vaccines and vaccinations



Prof. Dr. Mario Clerici

Website (<https://unimi.academia.edu/MarioClerici>) **SciProfiles** (<https://sciprofiles.com/profile/1664105>)

1. Department of Pathophysiology and Transplantation, University of Milano, 20122 Milano MI, Italy

2. Department of Molecular Medicine and Imaging in Rehabilitation, SM Nascente Scientific Institute, IRCCS, Don C Gnocchi Foundation, 20122 Milano MI, Italy

Interests: HIV; immunology; molecular microbiology; antiviral; virus infection; Alzheimer's disease; microRNA



Prof. Dr. George Dimopoulos

Website (<https://www.jhsph.edu/faculty/directory/profile/1215/george-dimopoulos>) **SciProfiles** (<https://sciprofiles.com/profile/86751>)

Department of Molecular Microbiology and Immunology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD 21205, USA

Interests: Malaria; *Anopheles gambiae*; Plasmodium; *Aedes aegypti*; Dengue; innate immunity; microbiome; microflora; metagenomics; transcriptomics; genomics; malaria control; dengue control



Prof. Dr. Onder Ergonul

Website (<https://rmhs.ku.edu.tr/speaker/onder-ergonul-md-mph/>) **SciProfiles** (<https://sciprofiles.com/profile/1637686>)

School of Medicine, Koç University, Rumelifeneri Yolu, 34450 Sariyer, Istanbul, Turkey

Interests: infectious diseases epidemiology; particularly emerging infections and health care related infections



Dr. Jozsef Z. Farkas

Website (<https://sites.google.com/view/jozsef-zoltan-farkas/home>) **SciProfiles** (<https://sciprofiles.com/profile/1859620>)

Division of Computing Science and Mathematics, University of Stirling, Stirling FK9 4LA, UK

Interests: mathematical epidemiology; basic reproduction number; Wolbachia infection dynamics; quantifying cancer dynamics in the lung; structured population dynamics

Special Issues, Collections and Topics in MDPI journals

Special Issue in *Infectious Disease Reports: Mathematical Modelling of Infectious Diseases* ([/journal/idr/special_issues/Model_Diseases](https://journal/idr/special_issues/Model_Diseases)).



Prof. Dr. Carlos Franco-Paredes

Website (<https://profiles.ucdenver.edu/display/14683192>) **SciProfiles** (<https://sciprofiles.com/profile/1135162>)

1. Department of Medicine, Division of Infectious Diseases, Anschutz Medical Center, University of Colorado, Aurora, CO 80045, USA

2. Instituto Nacional de Salud, Hospital Infantil de México, Federico Gomez, México City 06720, México

Interests: tropical medicine; Chagas disease; cryptococcosis

Special Issues, Collections and Topics in MDPI journals

Special Issue in *Tropical Medicine and Infectious Disease: The Global Burden of Disease of Chagas Disease (American Trypanosomiasis)*

([/journal/tropicalmed/special_issues/c_d](https://journal/tropicalmed/special_issues/c_d)).



Prof. Dr. Bishara Freij

Website (https://doctors.beaumont.org/provider/Bishara+J+Freij/228243?name=Bishara%20J%20Freij&sort=relevance&_gl=1*1019q75*_ga*MjE1MTIxMDQxLjE2MjMxNDEyMjY.*_ga_MMRF97YMCQ*MTYyMzMwNTIyNS4yLjAuMTYyMzI1NTI041.16231412)

1. Pediatric Infectious Diseases, Beaumont Children's Hospital, Royal Oak, 48073 MI, USA
2. Oakland University William Beaumont School of Medicine, Rochester, 48309 MI, USA

Interests: pediatric infections; congenital and perinatal infections; central nervous system infections; musculoskeletal infections; viral infections and antiviral therapy; history of medicine



Dr. Andrea Frustaci

Website (<https://esc365.escardio.org/Person/34249-dr-frustaci-andrea>) **SciProfiles** (<https://sciprofiles.com/profile/784991>)

Department of Clinical, Internal, Anesthesiology, and Cardiovascular Sciences, Sapienza University, Rome, Italy

Interests: cardiomyopathies; myocarditis; heart failure

Special Issues, Collections and Topics in MDPI journals

Special Issue in **Journal of Clinical Medicine: Myocarditis in Clinical Practice** ([/journal/jcm/special_issues/Clinical_Myocarditis](https://journal/jcm/special_issues/Clinical_Myocarditis))

Special Issue in **Journal of Clinical Medicine: Myocarditis in Clinical Practice — Part II** ([/journal/jcm/special_issues/47AT418D89](https://journal/jcm/special_issues/47AT418D89))



Dr. Simon D. Goldenberg

Website (<https://www.guysandstthomas.nhs.uk/our-services/consultant-profiles/infection/simon-goldenberg.aspx>)

SciProfiles (<https://sciprofiles.com/profile/1973448>)

Centre for Clinical Infection and Diagnostics Research, King's College London, and Guy's and St Thomas' NHS Foundation Trust, London SE1 7EH, UK

Interests: healthcare associated infections; clostridium difficile infections; infection prevention and control; decontamination; engineering aspects of infection control and the built environment; antimicrobial resistance; laboratory diagnostics (including molecular and point of care)



Prof. Dr. Delia Goletti

Website (<https://www.inmi.it/ricerca-traslazionale>)

National Institute for Infectious Diseases, Lazzaro Spallanzani, IRCCS, 00149 Roma, Italy

Interests: immunity to *M. tuberculosis*; *Echinococcus granulosus*; SARS-CoV-2; HIV



Dr. Guido Granata

Website (<https://www.researchgate.net/profile/Guido-Granata>) **SciProfiles** (<https://sciprofiles.com/profile/1149498>)

Clinical and Research Department, National Institute for Infectious Diseases "L. Spallanzani" IRCCS, Rome, Italy

Interests: Immune response; Immunodeficiency disorders; Host-pathogen interaction; Host and Microbiota Interaction; Clostridioides difficile infection; Antimicrobial resistance; Antimicrobial treatment

Special Issues, Collections and Topics in MDPI journals

Special Issue in **Antibiotics: Clostridioides difficile Infection** ([/journal/antibiotics/special_issues/clostri_difficile](https://journal/antibiotics/special_issues/clostri_difficile))

Special Issue in **Infectious Disease Reports: Antimicrobial Resistance and Stewardship in the Time of COVID-19 Pandemic**

([/journal/idr/special_issues/antimicrobial_resistance_and_stewardship](https://journal/idr/special_issues/antimicrobial_resistance_and_stewardship))

Special Issue in **Antibiotics: Clostridioides difficile Infection, 2nd Volume** ([/journal/antibiotics/special_issues/Clostridioides_2nd](https://journal/antibiotics/special_issues/Clostridioides_2nd))

Special Issue in **Life: Targeting the Gut during Infections: From Bench to Bedside** ([/journal/life/special_issues/gut_infections](https://journal/life/special_issues/gut_infections))



Dr. Ignazio Grattagliano

Website (<https://www.researchgate.net/profile/Ignazio-Grattagliano>) **SciProfiles** (<https://sciprofiles.com/profile/1527396>)

Family Medicine, University Medical School, 70124 Bari, Italy

Interests: cirrhosis; family medicine; Hepatitis B; Hepatitis C; liver; mitochondria; oxidative stress



Prof. Dr. Rodney Hoff

[Website \(https://globalhealth.washington.edu/faculty/rodney-hoff\)](https://globalhealth.washington.edu/faculty/rodney-hoff) [SciProfiles \(https://sciprofiles.com/profile/227610\)](https://sciprofiles.com/profile/227610)

Department of Global Health, School of Public Health, University of Washington, Seattle, WA 98195, USA

Interests: global health security; disease surveillance; environmental health (incl. Climate Change); infectious diseases; influenza; malaria; viruses (HIV/AIDS)



Dr. Rodney P. Jones

[Website \(http://www.hcaf.biz\)](http://www.hcaf.biz) [SciProfiles \(https://sciprofiles.com/profile/359928\)](https://sciprofiles.com/profile/359928)

Population Health Analytics Department, Healthcare Analysis & Forecasting, Wantage OX12 0NE, UK

Interests: healthcare demand; forecasting and capacity planning; spatio-temporal analysis; social groups; financial risk in healthcare purchasing; death; end-of-life; infectious outbreaks; cytomegalovirus

Special Issues, Collections and Topics in MDPI journals

Special Issue in [International Journal of Environmental Research and Public Health: Feature Papers Collection: Health Care Sciences & Services](#) ([/journal/ijerph/special_issues/HF3CN8FZDQ](#))



Prof. Dr. Carol A. Kauffman

[Website \(http://www.antimicrobe.org/authors/carol_kauffman.asp\)](http://www.antimicrobe.org/authors/carol_kauffman.asp)

Division of Infectious Diseases, Department of Internal Medicine, Veterans Affairs Ann Arbor Healthcare System and University of Michigan Medical School, Ann Arbor, MI 48105, USA

Interests: diagnosis and treatment of fungal infections; infections in immunocompromised hosts; fungal infections in the elderly

Special Issues, Collections and Topics in MDPI journals

Special Issue in [Journal of Fungi: Fungal Infections of the Central Nervous System](#) ([/journal/jof/special_issues/fungal_cns](#))



Dr. Anand Kumar

[Website \(https://www.lanl.gov/search-capabilities/profiles/anand-kumar.shtml\)](https://www.lanl.gov/search-capabilities/profiles/anand-kumar.shtml)

Biosecurity and Public Health Group, Bioscience Division, Los Alamos National Laboratory, Los Alamos, NM 87544, USA

Interests: Infectious disease; microbiome; probiotics and food safety



Dr. Daniela Loconsole

[Website \(https://www.uniba.it/ricerca/dipartimenti/scienze-politiche/docenti/loconsole-daniela\)](https://www.uniba.it/ricerca/dipartimenti/scienze-politiche/docenti/loconsole-daniela) [SciProfiles \(https://sciprofiles.com/profile/1762832\)](https://sciprofiles.com/profile/1762832)

Hygiene Section, Department of Biomedical Sciences and Human Oncology, University of Bari, 70124 Bari, Italy

Interests: health surveillance and promotion; molecular epidemiology; SARS-CoV-2; influenza; HIV; sexually transmitted infections; viral hepatitis infectious disease epidemiology; outbreak investigation; immunizations; epidemiology; antibiotic resistance; vaccine-preventable; infections; foodborne diseases; vector-borne disease; the effectiveness of vaccines; communication on vaccines and vaccinations

Special Issues, Collections and Topics in MDPI journals

Special Issue in [Infectious Disease Reports: Epidemiology and Prevention of Vaccine Preventable Diseases](#) ([/journal/idr/special_issues/Epidemiology_Vaccine](#))



Dr. Pierre Magal

[Website \(https://www.math.u-bordeaux.fr/~pmagal100p/\)](https://www.math.u-bordeaux.fr/~pmagal100p/)

Institut de Mathématiques de Bordeaux, Université de Bordeaux, 351 cours de la libération, 33400 Talence, France

Interests: infectious disease outbreaks; differential equations; dynamical systems and mathematical biology

Special Issues, Collections and Topics in MDPI journals

Special Issue in [Infectious Disease Reports: Mathematical Modelling of Infectious Diseases](#) ([/journal/idr/special_issues/Model_Diseases](#))



Dr. Deepa Mukundan

[Website \(http://utmc.utoledo.edu/findaphysician/Details/Deepa-Mukundan_483\)](http://utmc.utoledo.edu/findaphysician/Details/Deepa-Mukundan_483)



Dr. Helder Nakaya

Website (<https://sciforschenonline.org/journals/systems-biology-research/helder-nakaya.php>). **SciProfiles** (<https://sciprofiles.com/profile/1096858>).

Department of Clinical and Toxicological Analyses, School of Pharmaceutical Sciences, University of São Paulo, São Paulo 05508, Brazil

Interests: systems immunology; bioinformatics; transcriptomics; infectious diseases; integrative biology



Prof. Dr. Francisco José Nunes Antunes

Website (<http://isamb.medicina.ulisboa.pt/en/rg4-environment-and-infectious-diseases/>). **SciProfiles** (<https://sciprofiles.com/profile/1215594>).

Instituto de Saúde Ambiental (ISAMB), Faculdade de Medicina da Universidade de Lisboa, 1649-028 Lisboa, Portugal

Interests: infectious diseases; HIV; hepatitis; tropical medicine



Prof. Dr. Federico Pea

Website (<https://www.unibo.it/sitoweb/federico.pea/en>). **SciProfiles** (<https://sciprofiles.com/profile/773439>).

1. Department of Medical and Surgical Sciences, Alma Mater Studiorum, University of Bologna, 40126 Bologna, Italy

2. Director of SSD Clinical Pharmacology, University Hospital IRCCS Policlinico Sant'Orsola, 40126 Bologna, Italy

Interests: clinical pharmacokinetics and pharmacodynamics of antimicrobials; application of therapeutic drug monitoring to optimize and personalize therapy in special patient populations

Special Issues, Collections and Topics in MDPI journals

Special Issue in *Pharmaceutics: Drug Interactions of Antimicrobial Agents*

(/journal/pharmaceutics/special_issues/Drug_Interactions_of_Antimicrobial_Agents).

Special Issue in *Pharmaceutics: Personalization of Antimicrobial Dosing in Special Patient Populations: A Mandatory Issue in the Era of Precision Medicine*

(/journal/pharmaceutics/special_issues/antimicrobial_dosing).

Special Issue in *Antibiotics: 10th Anniversary of Antibiotics—Recent Advances in Pharmacodynamics of Antibiotics*

(/journal/antibiotics/special_issues/pharm_anti).



Dr. Tullio Prestileo

Website (<http://stoptb.it/organi-dellassociazione/>). **SciProfiles** (<https://sciprofiles.com/profile/1801342>).

1. ARNAS Civico-Benfratelli Hospital, Department of Medicine, Infectious Diseases Unit & Centre for Migration and Health, Palermo 90125, Italy

2. School of Medicine, Cefpas, Caltanissetta 93100, Italy

Interests: tuberculosis; hepatitis; HIV infection; sexually transmitted infections; tropical diseases; SARS-CoV-2; health of migrant and vulnerable people



Dr. Joan Puig-Barberà

Website (<https://publons.com/researcher/1709129/joan-puig-barbera/>). **SciProfiles** (<https://sciprofiles.com/profile/931842>).

Vaccines Research Area FISABIO, 46020 Valencia, Spain

Interests: hospitalization; influenza; human, vaccination; community-acquired infections; epidemiology; immunology, virology; prevention & control; respiratory syncytial viruses; population surveillance; reverse transcriptase polymerase chain reaction

Special Issues, Collections and Topics in MDPI journals

Special Issue in *International Journal of Environmental Research and Public Health: Coronavirus and Influenza Epidemiology. Coronavirus Vaccine Studies and Influenza Vaccine Effectiveness. New Challenges in Analysis and Reporting* (/journal/ijerph/special_issues/coronavirus_influenza_epidemiology).

Topics: *Acute Respiratory Viruses Molecular Epidemiology* (/topics/Acute_Respiratory_Viruses)



Dr. George Rachiotis

Website (<https://www.med.uth.gr/en/DepDetailsEN.aspx?id=116>)

Department of Hygiene and Epidemiology, Medical Faculty, University of Thessaly, Larissa 41222, Greece

Interests: epidemiology; occupational medicine; social determinants of health

Special Issues, Collections and Topics in MDPI journals

Special Issue in *Infectious Disease Reports: Viral Hepatitis: Epidemiological Features and Prevention* (/journal/idr/special_issues/Viral_Hepatitis_Prevention)



Prof. Dr. Mario C Raviglione

★ (<https://recognition.webofsciencegroup.com/awards/highly-cited/2020/>) [Website \(https://www.unimi.it/it/ugov/person/mario-raviglione\)](https://www.unimi.it/it/ugov/person/mario-raviglione)
[SciProfiles \(https://sciprofiles.com/profile/1025555\)](https://sciprofiles.com/profile/1025555)

Global Health Centre, University of Milan, 20122 Milan, Italy

Interests: global health; precision public health; policies; tuberculosis; mycobacterial diseases



Dr. Javier Cobo Reinoso

[Website \(https://publons.com/researcher/2639880/javier-cobo-reinoso/\)](https://publons.com/researcher/2639880/javier-cobo-reinoso/)

Servicio de Enfermedades Infecciosas, Hospital Ramón y Cajal, IRYCIS, 28034 Madrid, Spain

Interests: C.difficile infection; osteoarticular infections; implant associated infections; antimicrobial stewardship programs



Prof. Dr. Frederic Schoenberg

[Website \(https://www.ioes.ucla.edu/person/frederic-paik-schoenberg/\)](https://www.ioes.ucla.edu/person/frederic-paik-schoenberg/)

Department of Statistics, University of California Los Angeles, Los Angeles, CA 90095-1554, USA

Interests: Covid-19; Ebola; spread of infectious diseases; Hawkes point process models



Prof. Dr. Bhanu Sinha

[Website \(https://www.rug.nl/staff/b.sinha/\)](https://www.rug.nl/staff/b.sinha/)

Department of Medical Microbiology, University Medical Center Groningen, 9713 GZ Groningen, The Netherlands

Interests: microbiology; infectious diseases; pharmacology



Prof. Dr. Pierluigi Viale

[Website \(https://www.unibo.it/sitoweb/pierluigi.viale\)](https://www.unibo.it/sitoweb/pierluigi.viale)

Department of Medical and Surgical Sciences, University of Bologna, 40126 Bologna, Italy

Interests: severe infections; haematology; invasive fungal infections; solid organ transplant; epidemiology; infectious risk; Antimicrobial Stewardship



Dr. Timothy J. Wade

[Website \(https://apha.confex.com/apha/143am/webprogram/Person243256.html\)](https://apha.confex.com/apha/143am/webprogram/Person243256.html)

USA Environmental Protection Agency (EPA), Office of Research and Development, National Health and Environmental Effects Research Laboratory, Environmental Public Health Division, Research Triangle Park, NC 27709, USA

Interests: environmental epidemiology; waterborne disease; infectious disease; microbial risk assessment



Prof. Dr. Glenn Webb

[Website \(https://as.vanderbilt.edu/math/bio/?who=glenn-webb\)](https://as.vanderbilt.edu/math/bio/?who=glenn-webb)

Department of Mathematics, Vanderbilt University, 1326 Stevenson Center, Station B 407807, Nashville, TN 37240, USA

Interests: mathematical biology; population dynamics; models of tumor growth; differential equations

Special Issues, Collections and Topics in MDPI journals

Special Issue in [Infectious Disease Reports: Mathematical Modelling of Infectious Diseases \(/journal/idr/special_issues/Model_Diseases\)](#)

[Infect. Dis. Rep. \(/journal/idr\)](#), EISSN 2036-7449, Published by MDPI [Disclaimer](#)

[RSS \(/rss/journal/idr\)](#) [Content Alert \(/journal/idr/toc-alert\)](#)

Further Information

[Article Processing Charges \(/apc\)](#)

[Pay an Invoice \(/about/payment\)](#)

[Open Access Policy \(/openaccess\)](#)

[Contact MDPI \(/about/contact\)](#)



[Guidelines](#)

[For Authors \(/authors\)](#)

[For Reviewers \(/reviewers\)](#)

[For Editors \(/editors\)](#)

[For Librarians \(/librarians\)](#)

[For Publishers \(/publishing_services\)](#)

[For Societies \(/societies\)](#)

[For Conference Organizers \(/conference_organizers\)](#)

MDPI Initiatives

[Sciforum \(https://sciforum.net\)](https://sciforum.net)

[MDPI Books \(https://www.mdpi.com/books\)](https://www.mdpi.com/books)

[Preprints \(https://www.preprints.org\)](https://www.preprints.org)

[Scilit \(https://www.scilit.net\)](https://www.scilit.net)

[SciProfiles \(https://sciprofiles.com\)](https://sciprofiles.com)

[Encyclopedia \(https://encyclopedia.pub\)](https://encyclopedia.pub)

[JAMS \(https://jams.pub\)](https://jams.pub)

[Proceedings Series \(/about/proceedings\)](#)

Follow MDPI

[LinkedIn \(https://www.linkedin.com/company/mdpi\)](https://www.linkedin.com/company/mdpi)

[Facebook \(https://www.facebook.com/MDPIOpenAccessPublishing\)](https://www.facebook.com/MDPIOpenAccessPublishing)

[Twitter \(https://twitter.com/MDPIOpenAccess\)](https://twitter.com/MDPIOpenAccess)



Subscribe to receive issue release notifications and newsletters from MDPI journals

© 1996-2022 MDPI (Basel, Switzerland) unless otherwise stated

[Disclaimer](#)

[Terms and Conditions \(/about/terms-and-conditions\)](#)

[Privacy Policy \(/about/privacy\)](#)

Molecular detection of a new pathotype enteroaggregative haemorrhagic *Escherichia coli* (EAHEC) in Indonesia, 2015

Wahyu Setyarini,¹ Dadik Raharjo,¹
Radita Yuniar Arizandy,¹ Zakaria
Pamoengkas,¹ Subijanto Marto
Sudarmo,^{2,3} Alpha Fardah Athiyah,^{2,3}
Toshiro Shirakawa⁴

¹Gastroenteritis Study Group, Institute of Tropical Disease; ²Department of Pediatrics, Faculty of Medicine; ³Dr. Soetomo General Hospital, Surabaya, Indonesia; ⁴Center for Infectious Disease, Kobe University Graduate School of Medicine, Kobe, Japan

Abstract

Enteroaggregative haemorrhagic *Escherichia coli* (*E. Coli*, EAHEC) has been identified as the agent responsible for one of the largest outbreaks of gastroenteritis and Haemolytic-uremic syndrome (HUS) that is transmitted through food in Germany in 2011. The hypervirulent pathotype has a unique combination of two pathogens namely enterohemorrhagic *E. coli* strain (EHEC) which produces shiga/verotoxin and enteroaggregative *E. coli* toxins (EAEC) which produces toxins similar to ST and hemolysin. The toxin produced by the EAHEC strain is a hybrid pathotype that combines the virulence potential of the EAEC and EHEC strains that will damage the microcirculation, cause vasculitis and other toxic effects. The purpose of this study was to determine the percentage of samples infected with enteroaggregative hemorrhagic *E. coli* bacteria (EAHEC) in pediatric diarrhea patients at DR. Soetomo Hospital, Surabaya, Indonesia, 2015. This study used PCR (Polymerase Chain Reaction) method to detect enteroaggregative *E. coli* strains (CVD432 and *aac* genes) and enterohemorrhagic *E. coli* (*eae* gene). The results showed that 33 out of 40 (82,5%) stool samples examined were detected enteroaggregative *E. coli* (EAEC), 4 out of 40 (10%) enterohemorrhagic *E. coli* (EHEC) and 3 out of 40 (7,5%) enteroaggregative haemorrhagic *E. coli* bacteria (EAHEC), which caused diarrhea in pediatric diarrhea patients at Dr. Soetomo General Hospital. The unique combination of genomic features of the Surabaya outbreak strain, containing characteristics from pathotypes

EAEC and EHEC, suggested that it represents a new pathotype enteroaggregative haemorrhagic *E. coli* (EAHEC). It is expected that development of specific primer design and sequencing are needed to continue in this research.

Introduction

Diarrhea is a common cause of death in developing countries and the second leading cause of death in infants throughout the world. Same infectious diarrheal diseases are caused by viruses, bacteria, and parasites. Bacteria causes about 15% of cases in children, with the most common type being *E. coli*. Most strains of *E. coli* are harmless, but some pathogenic serotypes can cause serious food poisoning and diarrhea in humans.¹

E. coli is classified based on its virulence characteristics, each group causes disease through different mechanisms. Virotypes or pathotype classification are based on the presence of certain virulence factors and their interactions with mammalian cells or tissues such as adhesion, and or invasion of mammalian cells, and toxin production. Pathogenetic *E. coli* are classified into five virotypes namely (1) Enterotoxigenic *E. coli* (ETEC), which produces heat-resistant exotoxin (LT) and heat-resistant enterotoxin (ST). (2) Enteropathogenic *E. coli* (EPEC), which adheres very well to epithelial cells, attaches adhesions or removes wounds and irritates but does not release toxins. (3) Enterohemorrhagic *E. coli* (EHEC), which produces shiga/verotoxin, named for its cytotoxic effect on vero cells, an African monkey kidney. (4) Enteroaggregative *E. coli* (EAEC) is characterized by a pattern of attachment that is typical in humans and produces toxins similar to ST and hemolysin. (5) Enteroinvasive *E. coli* (EIEC) does not ferment lactose and produces disease by invading intestinal mucosal epithelial cells.²

In mid-May 2011 there was an outbreak of diarrhea in Germany. Until June 2, 2011, Germany found 830 cases of Hemolytic Uraemic Syndrome (HUS) with 46 deaths. The same cases were found in 11 other countries: Austria, Czech Republic, Denmark, France, the Netherlands, Norway, Spain, Sweden, Switzerland, the United Kingdom, and the United States. Symptoms of this disease in the form of abdominal pain are cramps and diarrhea. In some cases, it can even cause bloody diarrhea (haemorrhagic colitis). Fever and vomiting can also occur.³

Preliminary research on the genetic

Correspondence: Dadik Raharjo, Gastroenteritis Study Group, Institute of Tropical Disease, Universitas Airlangga, Kampus C UNAIR, Jl. Mulyorejo, 60115 Surabaya, East Java, Indonesia.
E-mail : dadik_tdc@yahoo.co.id

Key words: *E. coli*, EAHEC, pediatric diarrhea patients, Dr. Soetomo General Hospital.

Contributions: WS, bacterial culture, identification *Escherichia coli* (*E. Coli*) by PCR, manuscript writing, edited the manuscript and references search; DR, manuscript reviewing; RYA, bacterial culture, identification of *E. coli* by PCR; ZP, bacterial culture; SMS, manuscript reviewing ; AFA, handling sample collection; TS, funding this research.

Conflict of interest: The authors declare no conflict of interest.

Funding: This work is supported by the Japan Initiative for Global Research Network on Infectious Diseases (J-GRID).

Acknowledgements: This research was supported by the Japan Initiative for Global Research Network on Infectious Diseases (J-GRID); Institute of Tropical Disease (ITD) and Department of Pediatrics, Faculty of Medicine, Universitas Airlangga; Dr. Soetomo General Hospital, Surabaya, Indonesia. This article has been presented in International Conference of Infectious Diseases, Biothreats, and Military Medicine (INSBIO MM), Surabaya 2019.

Conference Presentation: This article have been presented in an International Conference Infectious Diseases, Biothreats, and Military Medicine (INSBIO MM) 2019.

Received for publication: 17 February 2020.
Accepted for publication: 1 July 2020.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0).

©Copyright: the Author(s), 2020

Licensee PAGEPress, Italy

Infectious Disease Reports 2020; 12(s1):8745
doi:10.4081/idr.2020.8745

analysis shows, this bacterial strain is a mutant form of two bacteria *E. coli*, EAEC and EHEC called EAHEC. When these two bacteria combine, it is dangerous to humans. One of the bacteria will take toxic substances from other bacteria and produce toxins that are more dangerous because it causes severe diarrhea, even damaging the tissues, including the kidneys. This case of *E. coli* outbreaks has caused rare and life

threatening kidney failure. A normal *E. coli* infection is also life-threatening, but generally only in the group of infants, children, and people who have weak immunity.⁴

In 2010, diarrheal diseases were ranked as the first inpatient in Indonesia with 71,889 cases and 1,289 of them died. As for outpatient care, there were 105,279 new cases of diarrhea. The number of diarrhea patients in East Java Province in 2006 was 970,554, with sufferers in toddlers 448,677. In 2008 in Surabaya reported 66,841 cases of diarrhea or diarrhea morbidity rate of 2,355 per 100,000 population and the number of cases of diarrhea in children under five was reported as 24,571 cases or 36.76% of all cases of diarrhea.⁵

Based on the fact of the disease incidence by *E. coli* and its impact on human life, people need more information about *E. coli* aspects as well as its role in the spread of diseases caused by food (Foodborne Diseases). Until now, the percentage of the diarrhea caused by EAHEC in children under five years old in the Dr. Soetomo Hospital Surabaya still unknown.

Materials and Methods

Forty faecal samples from diarrhea patients under five years old in Dr. Soetomo General Hospital who have not taken antibiotics yet were collected. Fresh faecal samples were cultured in MacConkey agar, then incubated at 37°C for 18-24 hours. All the colonies were collected and suspended in test tube containing 2 ml of sterile distilled water. The cell suspension was boiled at 100°C for 15 minutes, then centrifugated at 10,000 rpm for 10 minutes. Supernatant fluid was transferred into a new sterile tube, DNA target is ready to use.

Amplification was performed using PCR Master Mix; AAICf primers, ATTGTCCTCAGGCATTTCAC and AAICr, ACGACACCCCTGATAAACAA and CVD432f primers, CTGGCGAAAGA CTGTATCAT and CVD432r primers, CAATGTATAGAAATCCGCTGTT (EAEC); EAEf primers, CCCAATT CGGCACAAGCATAAGC and EAER, CCCGGATCCGTCTCGCCAGTATTCG (EHEC).⁶

A total of 25 µL PCR mixture consisting of PCR Mix 12.5 µL, 1 µL of each primer (AAIC and CVD432) forward primer, reverse primer 1 µL, 4.5 µL H₂O, and 6 µL of the target DNA. PCR was carried out in a Bio-rad PCR system T100TM Thermal Cycler (BioRad). PCR stages are set as denaturation at 94°C for 20 seconds; primer annealing at 57°C for 20

seconds; primer extension at 72°C for 60 seconds; as many as 35 cycles; and the final stage is final extension at 72°C for 10 minutes.

Total 5 µL of DNA amplification product by PCR analyzed with electrophoresis gel containing 2% agarose in 0.5× TBE buffer. Insert samples, positive controls, and DNA markers were loaded in the gel wells and provide an electrical of 100v until the indicator color reaches 1 cm from the bottom edge of the gel. The gel was shaken in liquid ethidium bromide. The DNA bands were observed using UV Transilluminator. DNA bands in 215, 630,

and 881 base pairs meant samples showed positive for *E. coli* strain EAHEC.

This study used Polymerase Chain Reaction (PCR) for the detection of EAEC using AAIC and CVD primers. The AAIC primers will produce amplicons of 215 base pairs, CVD primers will produce amplicons of 630 base pairs. Positive results on testing with AAIC primers are shown by the emergence of 215 bp DNA bands seen in Figure 1 and CVD primers are shown by the emergence of 630 bp DNA bands in Figure 2.⁶ EHEC detection used EAE primers for PCR. The EAE primers will produce amplicons of 881 bp. Positive results in

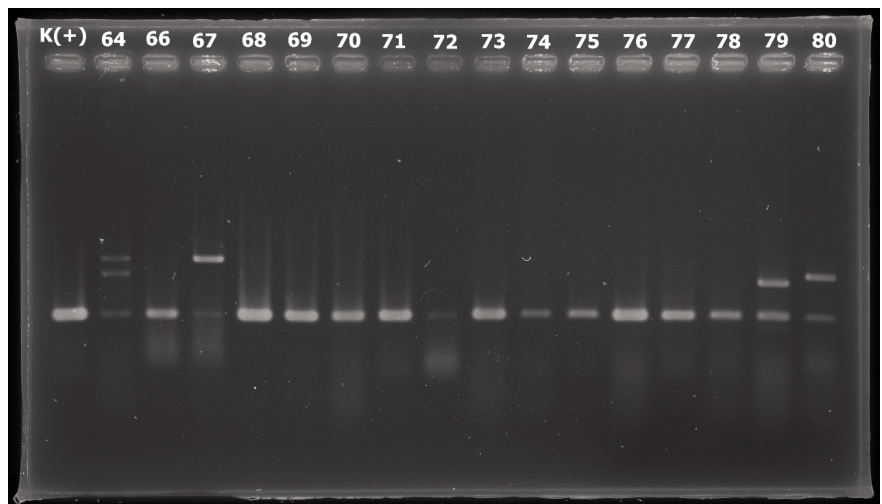


Figure 1. PCR amplification using primer AAIC.

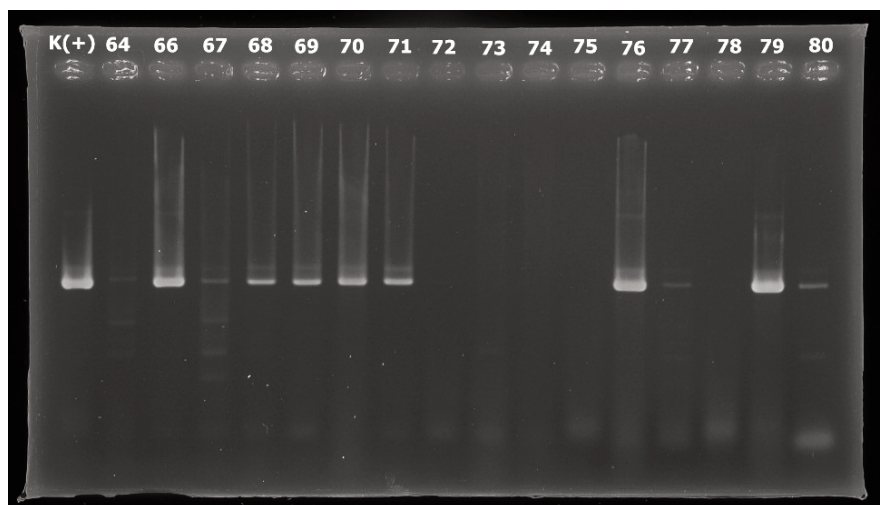


Figure 2. PCR amplification using primer CVD.

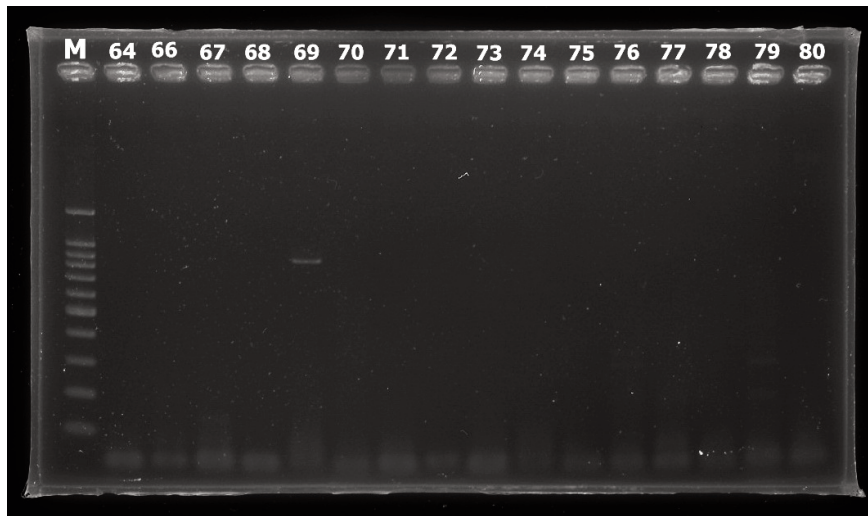


Figure 3. PCR amplification using primer EAE.

testing with EAE primer shown by the emergence of 881 bp DNA band as shown in the Figure 3.

Results

Samples with DNA fragments of 215 and 630 bp indicate that the samples are positive containing EAEC. Positive results can be detected at samples coded 4, 18, 32, 33, 35, 37, 38, 46, 49, 50, 51, 52, 53, 54, 57, 60, 62, 64, 66, 67, 68, 69, 70, 71, 76, 77, 79, 80, 82, 84, 86, 92 and 93. Samples with DNA fragments of 881 bp indicate that the sample is positive containing EHEC. Positive results can be detected at samples with codes 13, 19, 35, 69, 86, 91, 91 and 97.

The results showed that 33(82.5%) out of 40 stool samples examined were detected enteroaggregative *E. coli* (EAEC), 4 (10%) out of 40 stool samples examined were detected enterohemorrhagic *E. coli* (EHEC), and 3 (7.5%) out of 40 stool samples examined were detected

enteroaggregative haemorrhagic *E. coli* bacteria (EAHEC) which caused diarrhea in pediatric diarrhea patients at Dr. Soetomo General Hospital, Surabaya, Indonesia.

Discussion

Samples with DNA fragments at 215, 630, and 881 bp indicate that the sample is positive containing EAHEC. Positive results can be detected at samples with codes 35, 69, and 86. Based on the results of this study, it can be concluded that the EAHEC as one of the causes of diarrhea in children under five years old in Surabaya. There is 7.5% diarrhea caused by Enteroaggregative Hemorrhagic *E. Coli* (EAHEC) in children under five years old at Dr. Soetomo Hospital Surabaya.

Conclusions

The finding of EAHEC, which is combination of EAEC and EHEC in Surabaya

outbreak in 2015 suggested that it represents a new pathotype EAHEC in Indonesia. It is expected that sequencing and development of specific primer set are needed to continue and confirm in the next research

References

- Weintraub A. Enteroaggregative *Escherichia coli*: epidemiology, virulence and detection. *J Med Microbiol* 2007; 56:4-8.
- Harrington SM, Dudley EG, Nataro JP. Pathogenesis of enteroaggregative *Escherichia coli* infection. *FEMS Microbiol Lett* 2006; 254:12-18.
- Mellmann A, Harmsen D, Cummings CA et al. Prospective genomic characterization of the German enterohemorrhagic *Escherichia coli* O104:H4 outbreak by rapid next generation sequencing technology. *PLoS ONE*, 2011; 6.
- Brzuszkiewicz E, Thurmer A, Schuldes J et al. Genome sequence analyses of two isolates from the recent *Escherichia coli* outbreak in Germany reveal the emergence of a new pathotype: Entero-Aggregative-Haemorrhagic *Escherichia coli* (EAHEC). *Arch Microbiol* 2011; 193:883-891.
- Kementrian Kesehatan Republik Indonesia, 2011, Profil Kesehatan Indonesia 2010. <http://www.depkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/profil-kesehatan-indonesia-2010.pdf>
- Nguyen, Tung Vu P, Le Van, et al. Detection and Characterization of Diarrheagenic *Escherichia coli* from Young Children in Hanoi, Vietnam. *J Clin Microbiol* 2005; 43, 755-760.