

## DAFTAR PUSTAKA

- Açik, L., A. Temiz, A. Çelebi, S. Arslan, and R. Yilmaz, 2005. Protein patterns and plasmid profiles of the bacterial strains isolated from a poultry slaughterhouse in Ankara, Turkey. *Food Technology and Biotechnology*. 43 (3):255-262.
- Amarantini, C., T.Y. Budiarto, R. Suryanto, 2005. Profil cemaran bakteri coliform pada minuman susu segar yang dijual pedagang kaki lima di Daerah Istimewa Yogyakarta. *Biota*. X (1):10-16.
- Anonim, 2006a. Pemeriksaan anti *Salmonella typhi* IgM untuk diagnosis demam tifoid. *Buletin Informasi Laboratorium*. ISSN 0854-7165. No. 5.
- Anonim, 2006b. *Neraca Kualitas Lingkungan Hidup Daerah Tahun 2006*. Badan Pengendalian Dampak Lingkungan Kabupaten Sumba Barat.
- Anonim, 2007. Merck Microbiology Manual 12<sup>th</sup> Edition. Merck KGaA.
- Arjoso, S. and C.H. Simanjuntak, 1998. Typhoid fever and Salmonellosis in Indonesia. *Medical Journal of Indonesia*. S 1-5.
- Asna, S. M., J. H. Haq and M. Rahman, 2003. Nalidixic acid-resistant *Salmonella enterica* serovar *typhi* with decreased susceptibility to ciprofloxacin caused treatment failure: a report from Bangladesh. *Japanese Journal of Infectious Diseases*. 56:32-33.
- Atlas, R.M. 1997. *Principles of Microbiology*. 2<sup>nd</sup> Edition. Wm C. Brown Publishers, Iowa.
- Baumler, A. J., R. M. Tsolis, T. A. Ficht, and L. G. Adams, 1998. Evolution of host adaptation in *Salmonella enterica*. *Infection and Immunity*. 66 (10):4579-4587.
- Blaser, M.J. and J.M. Musser, 2001. Bacterial polymorphisms and disease in humans. *Journal of Clinical Investigation*. 107:391-392.
- Bourbeau, P.P. and J.K. Pohlman, 2001. Three days incubation may be sufficient for routine blood cultures with BacT/Alert FAN blood culture bottles. *Journal of Clinical Microbiology*. 39 (6):2079-2082. DOI: 10.1128/JCM.39.6.2079-2082.2001.
- Boucher, J. C., H.Yu, M.H. Mudd and V. Deretic, 1997. Mucoid *Pseudomonas aeruginosa* in cystic fibrosis: characterization of *muc* mutations in clinical isolates and analysis of clearance in a mouse model of respiratory infection. *Infection and Immunity*. 65: 3838–3846.

DOH. *Salmonella Surveillance: Annual Summary, 2006*. US Department of Health and Human Services. Atlanta, Georgia. <http://www.cdc.gov/ncidod/dbmd/phlisdata/salmtab/2006/SalmonellaAnnualSummary2006.pdf> [Diakses tgl. 27 April 2010].

- Chang, H.R., L.H. Loo, K. Jeyaseelan, L. Earnest and E. Stackebrandt, 1997. Phylogenetics relationships of *Salmonella typhi* and *Salmonella typhimurium* based on 16S rRNA sequence analysis. *International Journal of Systematic Bacteriology*. 47 (4):1253-1254.
- Chanh, N.Q., P. Everest, T.T. Khoa, D. House, S. Murch, C. Parry, P. Connerton, P.V. Bay, T.S. Diep, P. Mastroeni, N.J. White, T.T. Hien, V.V. Ho, G. Dougan, J.J. Farrar and J. Wain, 2004. A clinical, microbiological, and pathological study of intestinal perforation associated with typhoid fever. *Clinical Infectious Diseases* 39:61-7.
- Chaundry. R., B.V. Laxmi, N. Nisar, K. Ray, D. Kumar, 1997. Standardisation of polymerase chain reaction for the detection of *Salmonella typhi* in typhoid fever. *Journal of Clinical Pathology* 50(5):437-439. DOI:10.1136/jcp.50.5.437.
- Chomal, S. and L. Deodhar, 2000. Multidrug Resistance in *Salmonella typhi*. *Bombay Hospital Journal*. 42(3):445-6. [Diakses tgl: 3 April 2006].
- Christensen, H., S. Nordentoft, and J.E. Olsen. 1998. Phylogenetic relationship of *Salmonella* based on rRNA sequences. *International Journal of Systematic Bacteriology*. 48:605-610.
- Chun, J. 1999. *Phylogenetic Editor* (PHYDIT). Windows Version.
- Clarridge III, J.E. 2004. Impact of 16S rRNA gene sequence analysis for identification of bacteria on clinical microbiology and infectious diseases. *Clinical Microbiology Reviews*. 17 (4):840-862. DOI: 10.1128/CMR.17.4.840-862.2004.
- Connerton, P., J. Wain, T.T. Hien, T. Ali, C. Parry, N.T. Chinh, H.A. Vinh, V.A. Ho, T.O.S. Diep, N.P.J. Day, N.J. White, G. Dougan, And J.J. Farrar, 2000. Epidemic Typhoid In Vietnam: Molecular Typing Of Multiple-Antibiotic-Resistant *Salmonella enterica* Serotype Typhi from Four Outbreaks. *Journal of Clinical Microbiology*. Vol. 38 (2): 895-897.
- Crump, J.A., F.G. Youssef, S.P. Luby, M.O. Wasfy, J.M. Rangel, M. Taalat, S.A. Oun, and F.J. Mahoney, 2003. Estimating the incidence of typhoid fever and other febrile illnesses in developing countries. *Emerging Infectious Diseases*. 9 (5):539-544. <http://www.cdc.gov/ncidod/EID/vol9no5/pdfs/V9N5.pdf>. [Diakses tgl: 12 Februari 2010].

AD., R. Chaudry, M. Gopinath, D.S. Chander and B.V. Laxmi, 1999. Evaluation of PCR detection of *S. typhi* DNA in the diagnosis of clinically suspected typhoid fever. *Medical Journal of Indonesia*. D 1-1.

Dinas Kesehatan, 2005. Profil Kesehatan Kabupaten Sumba Barat Tahun 2004. Dinas Kesehatan Kabupaten Sumba Barat.

Drancourt, M., C. Bollet, A. Carlouz, R. Martelin, J.P. Gayral and D. Raoult, 2000. 16S ribosomal DNA sequence analysis of a large collection of environmental and clinical unidentifiable bacterial isolates. *Journal of Clinical Microbiology*. 38 (10):3623-3630.

Euzéby, J.P. 1999. Revised *Salmonella* nomenclature: designation of *Salmonella enterica* (ex Kauffmann and Edwards 1952) Le Minor and Popoff 1987 sp. nov., nom. rev. As the neotype species of the genus *Salmonella* Lignieres 1900 (Approved Lists 1980), rejection of the name *Salmonella choleraesuis* (Smith 1894) Weldin 1927 (Approved Lists 1980), and conservation of the name *Salmonella typhi* (Schroeter 1886) Warren and Scott 1930 (Approved Lists 1980). Request for an Opinion. *International Journal of Systematic Bacteriology*. 49:927-930.

Euzéby, J.P. 2005. *Salmonella* Nomenclature. <http://www.bacterio.cict.fr/salmonellanom.html#approvedlists>. [Diakses tgl. 31 Juli 2009].

Ezaki, T., Y. Kawamura, and E. Yabuuchi, 2000. Recognition of nomenclatural standing of *Salmonella typhi* (Approved List 1980), *Salmonella enteritidis* (Approved List 1980), and *Salmonella typhimurium* (Approved List 1980), and conservation of the specific epithets enteritidis and typhimurium. Request for an Opinion. *International Journal of Systematic and Evolutionary Microbiology*. 50:945-947.

Flayhart, D., A.P. Borek, T. Wakefield, J. Dick, and K.C. Carroll, 2007. Comparison of BACTEC plus blood culture media to BacT/Alert FA blood culture media for detection of bacterial pathogens in samples containing therapeutic levels of antibiotics. *Journal of Clinical Microbiology*. 45 (3):816-821. DOI: 10.1128/JCM.02064-06.

Felsenstein, J. 1993. *Phylogeny Inference Package version 3.5c*. Distributed by the author. Departement of Genetics, University of Washington, Seattle, USA.

Fukushima, M., K. Kakinuma, and R. Kawaguchi, 2002. Phylogenetic analysis of *Salmonella*, *Shigella*, and *Escherichia coli* strains on the basis of the *gyrB* gene sequence. *Journal of Clinical Microbiology*. 40 (8):2779-2785. DOI: 10.1128/JCM.40.8.2779-2785.2002.

Gasem, M.H., W.M.V. Dolmans, M. Keuter and R. Djokomoeljanto, 2001. Poor food hygiene and housing as risk factors for typhoid fever in Semarang,

- Giammanco, G., S. Pignato, and G.M. Giammanco, 1999. Recent trends in Salmonellosis epidemiology. *Journal of Prevention Medicine and Hygiene*. 40:19-24.
- Giraud, A., I. Matic, M. Radman, M. Fons and F. Taddei, 2002. Mutator bacteria as a risk factor in treatment of infectious diseases. *Antimicrobial Agents and Chemotherapy*. 46 (3):863-865. DOI: 10.1128/ AAC.46.3.863-865.2002.
- Grimont, P.A.D. and FX. Weill, 2007. *Antigenic formulae of the salmonella serovars*. 9<sup>th</sup> Ed. WHO Collaborating Centre for Reference and Research on *Salmonella*. [http://www.pasteur.fr/sante/clre/cadrecnr/salmoms/WKLM\\_2007.pdf](http://www.pasteur.fr/sante/clre/cadrecnr/salmoms/WKLM_2007.pdf) [Diakses tgl: 8 Juni 2009].
- Grossman, D.A., N.D. Witham, D.H. Burr, M. Lesmana, F.A. Rubin, G.K. Schoolnik and J. Parsonnet, 1995. Flagellar serotype of *Salmonella typhi* in Indonesia: relationships among motility, invasiveness, and clinical illness. *Journal of Infectious Diseases* 171 (1):212-6.
- Guerrant, R.L. 1987. Infeksi *Salmonella* dalam: Harrison. *Kelainan karena agen biologik dan lingkungan (Harrison's principles of internal medicine 1)*. Alih Bahasa: Andrianto, P., Jakarta: Penerbit Buku Kedokteran ECG, pp. 244-256.
- Gustafsson, I., M. Sjölund, E. Torell, M. Johannesson, L. Engstrand, O. Cars and D.I. Andersson, 2003. Bacteria with increased mutation frequency and antibiotic resistance are enriched in the commensal flora of patients with high antibiotic usage. *Journal of Antimicrobial Chemotherapy*. 52:645-650. DOI: 10.1093/jac/dkg427.
- Hadisaputro, S. 1998. Prevention and control of typhoid fever. *Medical Journal of Indonesia*. S 7-5:117-23.
- Hatta, M dan Ratnawati. 2008. Enteric fever in endemic areas of Indonesia: an increasing problem of resistance. *Journal of Infection in Developing Countries*. 2(4): 279-282. <http://www.jidc.org>. [Diakses tgl: 18 September 2008].
- Haque, A., J. Ahmed, J.A. Qureshi, 1999. Early detection of typhoid by polymerase chain reaction. *Annals of Saudi Medicine*. 19 (4):337-340.
- Hermans, P.W.M., S.K. Saha, W.J. van Leeuwen, H.A. Verbrugh, A. van Belkum, and W.H.F. Goessens, 1996. Molecular typing of *Salmonella typhi* strains from Dhaka (Bangladesh) and development of DNA probes identifying



- Höfling, J.F., A.S. Campos, C.V. Pereira, R.T. Rosa and E.A.R. Rosa, 1999. Preliminary characterization and grouping of candida species by numerical analysis of protein profiles obtained by polyacrylamide gel electrophoresis. *Revista Iberoamericana de Micologia*. 16:27-29.
- Hornick, R.B. 1989. Typhoid fever. In: Hoeprich. P.D. & Jordan, M.C. eds. *Infectious Diseases. A Modern Treatise of Infectious Processes*. 4th ed. Philadelphia: J.B. Lippincott Company, pp. 712-24. DOI: 1130-1406/99/5.00 Euros.
- Hosoglu, S., M. Aldemir, S. Alkalin, M.F. Geyik, I.H. Tacyldiz and M. Loeb, 2004. Risk factors for enteric perforation in patient with typhoid fever. *American Journal of Epidemiology*. 160 (1):46-50. DOI: 10.1093/aje/kwh172.
- House, D., J. Wain, VO A. Ho, TO S. Diep, N.T. Chinh, P.V. Bay, HA Vinh, M. Duc, C.M. Parry, G. Dougan, N.J. White, T.T. Hien, and J.J. Farrar, 2001. Serology of typhoid fever in an area of endemicity and its relevance to diagnosis. *Journal of Clinical Microbiology*. 39 (3): 1002-1007.
- HPA. 2008. *National standard method: Identification of Salmonella species BSOPID24*. <http://www.hpa-standardmethods.org.uk/documents/bsopid/pdf/bsopid24.pdf>. [Diakses tgl: 14 April 2009].
- Ivanov, B. 1998. Typhoid fever: current and future control approaches. *Medical Journal of Indonesia*. S 5-1:81-2.
- Jeniková, G., J. Pazlarová, and K. Demnerová, 2000. Detection of *Salmonella* in food samples by the combination of immunomagnetic separation and PCR assay. *International Microbiology*. 3:225-229. <http://www.im.microbios.org/>.
- Johnson, J.L. 1994. Similarity Analysis of rRNAs. In. Gerhardt, P., R.G.E. Murray, W.A. Wood, and N.R. Krieg (Eds.) *Methods for General and Molecular Bacteriology*. American Society for Microbiology, Washington, D.C.
- Jorgensen J.H., S. Mirrett, L.C. McDonald, P.R. Murray, M.P. Weinstein, J. Fune, C.W. Trippy, M. Masterson, L.B. Reller, 1997. Controlled clinical comparison of BACTEC plus aerobic/f resin medium with Bact/ALERT aerobic FAN medium for detection of bacteremia and fungemia. *Journal of Clinical Microbiology*. 35 (1):53-58. <http://jcm.asm.org/>.
- Juwono, R. 1996. Demam Tifoid dalam: Noer, H.M.S. (Editor), *Buku Ajar Ilmu Penyakit Dalam*. Jilid 1, Edisi Ketiga, Balai FKUI, Jakarta, pp. 435-42.

- Sachran, T., N. Wig, K. Renuka, A. Rapi, S. K. Rabra, and A. Misra, 2008. Is nalidixic acid resistance linked to clinical virulence in *Salmonella enterica* serovar Typhi infections?. *Journal of Medical Microbiology*. 57:1046-1048. DOI: 10.1099/jmm.0.47822-0.
- Karahan, Z.C., I. Mumcuoglu, H. Guriz, D. Tamer, N. Balaban, D. Aysev, and N. Akar, 2006. PCR evaluation of false-positive signals from two automated blood-culture systems. *Journal of Medical Microbiology*. 55:53-57. DOI 10.1099/jmm.0.46196-0.
- Kelly-Hope, L.A., W.J. Alonso, V.D. Thiem, D.D. Anh, D.G. Canh, H. Lee, D.L. Smith, and M.A. Miller, 2007. Geographical distribution and risk factors associated with enteric diseases in Vietnam. *American Journal of Tropical Medicine Hygiene*. 76 (4):706-712.
- Kothari, A., A. Pruthi, T.D. Chugh, 2008. The burden of enteric fever. *Journal of Infection in Developing Countries*. 2(4):253-259. <http://www.jidc.org>. [Diakses tgl: 18 Februari 2010].
- Kovach, W.L. 1990. *MVSP Plus Version 3.1. User Manual*. <http://www.kovcomp.com/>.
- Krisher, K.K., P. Gibb, S. Corbett and D. Church, 2001. Comparison of the BacT/ALERT PF pediatric FAN blood culture bottle with the standard pediatric blood culture bottle, the Pedi-BacT. *Journal of Clinical Microbiology*. 39 (8):2880-2883. DOI: 10.1128/JCM.39.8.2880-2883.2001.
- Kubota, K., T.J. Barrett, M.L. Ackers, P.S. Brachman, and E.D. Mintz, 2005. Analysis of *Salmonella enterica* serotype Typhi pulsed-field gel electrophoresis patterns associated with international travel. *Journal of Clinical Microbiology*. 43 (3):1205-1209. DOI: 10.1128/JCM.43.3.1205-1209.2005.
- Le Minor, L., M. Veron, and M. Popoff, 1982. Proposition pour une nomenclature des *Salmonella*. *Ann Microbiol (Inst Pasteur)*. 133B : 245-254.
- Le Minor, L., Popoff, M. Y., Laurent, B. & Hermant, D. (1986). Individualisation d'une septie' me sous-espe' ce de *Salmonella*: *S. choleraesuis* subsp. *indica* subsp. nov. *Ann Inst Pasteur. Microbiol* 137B : 211±217.
- Le Minor, L. and M.Y. Popoff, 1987. Designation of *Salmonella enterica* sp. nov., norm. rev., as the type and only species of the Genus *Salmonella*. *International Journal of Systematic Bacteriology*. 37 (4):465-468.
- Lemeshow, S., D.W. Hosmer Jr, J. Klar and S.K. Lwanga, 1990. *Adequacy of Sample Size in Health Studies*. John Wiley & Sons. New York. pp: 1-8.

- Levine, M.M., R. Black, C. Lanata, 1982. Chilean Typhoid Committee. Precise estimation of the number of chronic carriers of *Salmonella typhi* in Santiago, Chile, an endemic area. *The Journal of Infectious Diseases*; 146(6): 724-6.
- Lin, F.C., V.A. Ho, P.V. Bay, Thuy, N.T.T., D. Bryla, T.C. Thanh, H.B. Khiem, D.D. Trach and J.B. Robbins, 2000. The epidemiology of typhoid fever in The Dong Thap Province, Mekong Delta Region of Vietnam. *American Journal of Tropical Medicine Hygiene*. 62(5):644-648. <http://www.ajtmh.org/>.
- Lindquist, J. 2008. *An Introduction to Bacterial Identification: API-20E® Enteric Identification System*. Department of Bacteriology. University of Wisconsin-Madison. <http://www.lindquist.net/generalmicro/102bacteid2.html>. [Diakses tgl. 15 Juli 2008].
- Liu, S., A.B. Schryvers, K.E. Sanderson, and R.N. Johnston, 1999. Bacterial phylogenetic clusters revealed by genome structure. *Journal of Bacteriology*. 181 (21):6747-6755. <http://jb.asm.org/>.
- Logan, N.A. 1994. *Bacterial Systematics*. Blackwell Scientific Publications. London.
- Mastroeni, P. and D. Maskell (Eds), 2005. *Salmonella Infections: Clinical, Immunological and Molecular Aspects*. Cambridge University Press. [www.cambridge.org](http://www.cambridge.org). [Diakses tgl: 14 Agustus 2009].
- Massi, M.N., T. Shirakawa, A. Gotoh, M. Hatta, and M. Kawabata, 2005. Identification and sequencing of *Salmonella enterica* serotype Typhi isolates obtained from patients with perforation and non-perforation typhoid fever. *Southeast Asian Journal Tropical Medicine Public Health*. 36 (1):118-122. [http://www.tn.mahidol.ac.th/seameo/journal\\_36\\_1\\_2005.html](http://www.tn.mahidol.ac.th/seameo/journal_36_1_2005.html). [Diakses tgl: 11 Desember 2009].
- Maurelli, A. T., R.E. Fernandez, C.A. Bloch, C.K. Rode and A. Fasano, 1998. Black holes' and bacterial pathogenicity: a large genomic deletion that enhances the virulence of *Shigella* spp. And enteroinvasive *Escherichia coli*. *Proceedings of the National Academy of Sciences of the United States of America*. 95: 3943-3948.
- McDonald, L.C., J. Fune, L.B. Gaido, M.P. Weinstein, L.G. Reimer, T.M. Flynn, M.L. Wilson, S. Mirrett and L.B. Reller, 1996. Clinical importance of increased sensitivity of BacT/Alert FAN aerobic and anaerobic blood culture bottles. *Journal of Clinical Microbiology*. 34 (9):2180-2184. <http://jcm.asm.org/>.
- McDonald, L.C., M.P. Weinstein, J. Fune, S. Mirrett, L.G. Reimer, L.B. Reller, 2001. Controlled comparison of BacT/ALERT FAN aerobic medium and

- Mirza, S.H., N.J. Beeching, C.A. Hart, 1996. Multi-drug resistant typhoid: a global problem. *Journal of Medical Microbiology*. 44: 317-319.
- Mirza, S.H., S. Kariuki, K.Z. Mamun, N.J. Beeching, and C.A. Hart, 2000. Analysis of plasmid and chromosomal DNA of multidrug resistant *Salmonella enterica* Serovar Typhi from Asia. *Journal of Clinical Microbiology*. 38 (4):1449-1452. <http://jcm.asm.org/>.
- Mirza, S.H. 2005. Multi-drug Resistant Typhoid –A Global Review. *Infectious Diseases Journal of Pakistan*. Jan – Mar:17-20.
- Moehario, L.M. 2009. The molecular epidemiology of *Salmonella typhi* across Indonesia reveals bacterial migration. *Journal of Infection in Developing Countries*. 3(8):579-584. <http://www.jidc.org>. [Diakses tgl: 18 Februari 2010].
- Moorchung, N. And M.H. Mathura, 2003. False positif widal test in the presence of Malaria. *Journal Infectious Diseases Antimicrobia*. 20 (1): 9-12.
- Muliawan, S.Y. dan J.E. Surjawidjaja, 1999. Diagnosis dini demam tifoid dengan menggunakan protein membran luar *S. typhi* sebagai Antigen Spesifik. *Cermin Dunia Kedokteran*. 124:11-13. [Diakses tgl: 30 Oktober 2008].
- Ochiai, R.L., C.J. Acosta, M.C. Danovaro-Holliday, D. Baiqing, S.K. Bhattacharya, M.D. Agtini, Z.A. Bhutta, D.G. Canh, M. Ali, S. Shin, J. Wain, A. Page, M.J. Albert, J. Farray, R. Abu-Elyazeed, T. Pang, C.M. Galindo, L. von Seidlein, J.D. Clemens and the Domi Typhoid Study Group, 2008. A Study of typhoid fever in five Asian countries: disease burden and implications for control. *Bulletin of the World Health Organization*. April, 86 (4). DOI: 10.2471/BLT.06.039818.
- O'hara, C. M., D.L. Rhoden, and J.M. Miller, 1992. Reevaluation of the API 20E Identification System versus Conventional Biochemicals for Identification of Members of the Family Enterobacteriaceae: a New Look at an Old Product. *Journal of Clinical Microbiology*. Vol. 30 (1):123-125.
- Olive, D.M. and P. Bean, 1999. Principles and applications of methods for DNA-based typing of microbial organisms. *Journal of Clinical Microbiology*. 37 (6):1661-1669. <http://jcm.asm.org/>.
- Olsen, S.J., J. Pruckler, W. Bibb, N.T.M. Tanh, T.M. Trinh, N.T. Minh, S. Silvapalasingam, A. Gupta, P.T. Phuong, N.T. Chinh, N.V. Chau, P.D. Cam, and E.D. Mintz, 2004. Evaluation of rapid diagnostic tests for typhoid fever. *Journal of Clinical Microbiology*. 42 (5):1885-1889. DOI: 10.1128/JCM.42.5.1885-1889.2004.



- B.A., M. Leshana, D. Subekti, P. Tjandhi, W. Larasati, M. Putri, Ch. Simanjuntak, N.H. Punjabi, W. Santoso, Muzahar, Sukarma, Sriwati, S. Sarumpaet, M. Abdi, R. Tjindi, A. Sumardiati, H. Handayani, J.R. Campbell, W.K. Alexander, H.J. 3rd Beecham, and A.L. Corwin, 2002. Surveillance of bacterial pathogens of diarrhea disease in Indonesia. *Diagnostic Microbiology and Infectious Disease*. 44(3):227-234.
- Pang, T. and S.D. Puthuchear, 1983. Significance and value of the Widal test in the diagnosis of typhoid fever in an endemic area. *Journal of Clinical Pathology*. 36:471-475. DOI: 10.1136/jcp.36.4.471.
- Parry, C.M., N.T.T. Hoa, T.S. Diep, J. Wain, N.T. Chinh, H. Vinh, T.T. Hien, N.J. White, and J.J. Farrar, 1999. Value of single-tube Widal test in diagnosis of typhoid fever in Vietnam. *Journal of Clinical Microbiology*. 37 (9): 2882-2886. <http://jcm.asm.org/>.
- Parry, C.M., M.B. Tran Tinh Hien, G. Dougan, N.J. White, and J.J. Farrar, 2002. Medical progress: typhoid fever. *New England Journal of Medicine*. 347 (22):1770-1782. <http://content.nejm.org/>.
- Parry, C.M. 2004. The treatment of multidrugresistant and nalidixic-acid resistant typhoid fever in Viet Nam. *Transactions of the Royal Society of Tropical Medicine and Hygiene*. 98: 413-422. DOI: 10.1016/j.trsmh.2003.10.014.
- Petti, C.A., C.R. Polage, and P. Schreckenberger, 2005. The role of 16S rRNA gene sequencing in identification of microorganisms misidentified by conventional methods. *Journal of Clinical Microbiology*. 43 (12):6123-6125. DOI: 10.1128/JCM.43.12.6123-6125.2005.
- Prasetyo, R.V. dan Ismoedijanto, 1998. Metode diagnostik demam tifoid pada anak. *Media IDI*. 23:4-7. <Http://www.pediatrik.com/buletin/062241/44/8-f53zj>. [Diakses tgl: 24 Februari 2007].
- Priest, F. and B. Austin, 1993. *Modern Bacterial Taxonomy*. 2<sup>nd</sup> Ed. Chapman & Hall. London.
- Priest, F. and M. Goodfellow, 1999. *Applied Microbial Systematics*. Kluwer Academic Publishers.
- Quintaes. B.R., E. M. S. Reis, E. L. Fonseca, and E. Hofer, 2002. Conventional and molecular typing of *Salmonella typhi* strains from Brazil. *Revista do Instituto de Medicina Tropical de São Paulo*. 44:315-319. <http://www.scielo.br/>. [Diakses tgl: 14 Juli 2009].
- Rahman, M., A.K. Siddique, S. Shoma, H. Rashid, M.A. Salam, Q.S. Ahmed, G.B. Nair and R.F. Breiman, 2006. Emergence of multidrug-resistant *Salmonella enterica* serotype Typhi with decreased ciprofloxacin

- Renuka, K., S. Sood, B.K. Das and A. Kapil, 2005. High-level ciprofloxacin resistance in *Salmonella enterica* serotype Typhi in India. *Journal of Medical Microbiology*. 54: 999-1000. DOI: 10.1099/jmm.0.45966-0.
- Rotger, R. and J. Casadesús, 1999. The virulence plasmids of *Salmonella*. *International Microbiology*. 2:177-184. <http://www.im.microbios.org/>.
- Rubin, F.A., P.D. McWhirter, N.H. Punjabi, ED Lane, P. Sudarmono, S.P. Pulungsih, M. Lesmana, S. Kumala, D.J. Kopecko and S.L. Hoffman, 1989. Use of a DNA probe to detect *Salmonella typhi* in the blood of patients with typhoid fever. *Journal of Clinical Microbiology*. 27 (5): 1112-1114. <http://www.jcm.asm.org>.
- Saitou, N. And M. Nei, 1987. The Neighbor-joining method: a new method for reconstructing phylogenetic trees. *Molecular Biology Evolution*. 4 (4):406-425. <http://mbe.oxfordjournals.org/>. [Diakses: 3 Desember 2009].
- Schneider, R.E., M. Shiffman and J. Faigenblum, 1978. The potential effect of water on gastrointestinal infections prevalent in developing countries. *The American Journal of Clinical Nutrition*. 31:2089-2099. <http://www.ajcn.org/>. [Diakses tgl: 30 Juli 2009].
- Sembiring, L. 2002. *Petunjuk Praktikum Sistematika Mikrobia*. Laboratorium Mikrobiologi, Fakultas Biologi, UGM, Yogyakarta.
- Sembiring, L. 2004. Sistematika mikrobia sebagai sarana penyingkap keanekaragaman mikrobia dalam upaya pelestarian dan pemanfaatan sumberdaya hayati mikrobia. Seminar Nasional Biologi Prodi Biologi FMIPA ITS Surabaya.
- Skerman, V.B.D., Mc. Vicki, and P.H.A. Sneath, 1980. Approved Lists of Bacterial Names. *International Journal of Systematic Bacteriology*. 30:225-420.
- Soedarto, 1996. *Penyakit-Penyakit Infeksi di Indonesia*. Widya Medika Jakarta. pp: 43-49.
- Soewandojo, E., Suharto, and U. Hadi, 1998. Typhoid fever in Indonesia: clinical picture, treatment and status after therapy. *Medical Journal of Indonesia*. S 6-1.
- Steele, D. 2008. The importance of generating evidence on typhoid fever for implementing vaccination strategies. *Journal Infection Developing Countries*. 2(4):250-252. <http://www.jidc.org>. [Diakses tgl: 18 September 2008].

- Thompson, J.D., T.J. Gibson, F. Plewniak, F. Jeanmougin, and D.G. Higgins. 1997. The CLUSTAL\_X windows interface: flexible strategies for multiple sequence alignment aided by quality analysis tools. *Nucleic Acids Research*. 25:4876-4882. <http://nar.oxfordjournals.org>. [Diakses tgl: 10 September 2007].
- Thong, K., Y. Cheong, S. Puthucheary, C. Koh, and T. Pang, 1994. Epidemiologic analysis of sporadic *Salmonella typhi* isolates and those from outbreaks by pulsed-field gel electrophoresis. *Journal of Clinical Microbiology*. 32 (5): 1135-1141. <http://www.jcm.asm.org>.
- Thong, K., S. Puthucheary, R.M. Yassin, P. Sudarmono, M. Padmidewi, E. Soewandojo, I. Handojo, S. Sarasombath, and T. Pang, 1995. Analysis of *Salmonella typhi* isolates from Southeast Asia by pulsed-field gel electrophoresis. *Journal of Clinical Microbiology*. 33 (7):1938-1941. <http://www.jcm.asm.org>.
- Thong, K., A. Cordano, R. M. Yassin, and T. Pang, 1996. Molecular analysis of environmental and human isolates of *Salmonella typhi*. *Applied and Environmental Microbiology*. 62 (1):271-274.
- Thong, K.L., S. Nair, G. Subramaniam, S. Puthucheary, R. Yassin, Y.M. Cheong, S.L. Liu, K.E. Sanderson, A.M. Cordano, T. Pang, P. Sudarmono, E. Soewandojo, I. Handojo, M. Padmidewi, S. Sarasombath, M. Passey, B. Combs, and R. Chaundry, 1998. Genetic dynamics and molecular epidemiology of *Salmonella typhi*. *Medical Journal of Indonesia*. S 9-1.
- Thong, K., Y. Goh, R.M. Yassin, M.G. Lau, M. Passey, G. Winston, M. Yoannes, T. Pang and J.C. Reeder, 2002. Increasing genetic diversity *Salmonella enterica* Serovar Typhi isolates from Papua New Guinea over the period from 1992-1999. *Journal of Clinical Microbiology*. 40 (11):4156-4160. DOI: 10.1128/JCM.40.11.4156-4160.2002.
- Tikoo, A., A.K. Tripathi, S.C. Verma, N. Agrawal, and G. Nath, 2001. Application of PCR fingerprinting techniques for identification and discrimination of *Salmonella* Isolates. *Current Science*. 80 (8):1049-1052. <http://www.ias.ac.in/currsci/apr252001/1049.pdf>. [Diakses tgl: 15 Februari 2010].
- Tindall, B.J., P.A.D. Grimont, G.M. Garrity and J.P. Euzéby, 2005. Nomenclature and taxonomy of the genus *Salmonella*. *International Journal of Systematic and Evolution Microbiology*. 55:521-524. DOI: 10.1099/ijss.0.63580-0.
- Toprak, D. and S. Erdoğan, 2008. Spatial analysis of the distribution of typhoid fever in Turkey. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*. 37:1367-1371. <http://www.isprs.org>. [Diakses tgl: 5 Januari 2010].

- Tran, H.H., G. Bjune, B.M. Nguyem, J.A. Rottingen, R.F. Grais, P.J. Guerin, 2005. Risk factors associated with typhoid fever in Son La province, northern Vietnam. *Transactions of the Royal Society of Tropical Medicine and Hygiene*. 99:819-826. doi:10.1016/j.trstmh.2005.05.007.
- Tsen, H.Y., J.S. Lin, H.H. Hu, P.R. Liu, and T.K. Wang, 1999. Use of pulsed field gel electrophoresis as an epidemiological toll for analysis of sporadic associated strains of *Salmonella typhi* isolated in Taiwan. *Journal of Applied Microbiology*. 86:761-768. <http://www3.interscience.wiley.com/cgi-bin/fulltext/119099042/PDFSTART>. [Diakses tgl: 15 Februari 2010].
- Turner, K.M., L. Restaino, E.W. Frampton, 2000. Efficacy of chromocult coliform agar for coliform and *Escherichia coli* detection in foods. *Journal of Food Protection*. 63:539-541.
- Turner, A.K., S. Nair and J. Wain. 2006. The acquisition of full fluoroquinolone resistance in *Salmonella Typhi* by accumulation of point mutations in the topoisomerase targets. *Journal of Antimicrobial Chemotherapy*. Vol. 58: 733-740. doi:10.1093/jac/dkl333.
- Uneke, C.J. 2008. Concurrent malaria and typhoid fever in the tropics: the diagnostic challenges and public health implications. *Journal of Vector Borne Diseases* (45): 133-142.
- van Belkum, A., M. Struelens, A. de Visser, H. Verbrugh, and M. Tibayrenc, 2001. Role of genomic typing in taxonomy, evolutionary genetics, and microbial epidemiology. *Clinical Microbiology Reviews*. 14 (3):547-560. DOI: 10.1128/CMR.14.3.547-560.2001.
- Vandamme, P., B. Pot, M. Gillis, P. De Vos, K. Kersters and J. Swings, 1996. Polyphasic taxonomy, a consensus approach to bacterial systematics. *Microbiology Reviews*. 60 (2):407-438. <http://mmbr.asm.org>.
- Velema, P.J., G.V. Wijnen, P. Bult, T.V. Naerssen and S. Jota, 1997. Typhoid fever in Ujung Pandang, Indonesia – high-risk group and high-risk behaviours. *Tropical Medicine and International Health*. 2 (11):1088-1094. DOI: 10.1046/j.1365-3156.1997.d01-179.x.
- Ving H., J. Wain, T.N.II. Vo, 1996. Two or three days of ofloxacin treatment for uncomplicated multidrugresistant typhoid fever in children. *Antimicrobial Agents Chemotherapy*. 40: 958-961.
- Virdi, J.S. and P. Sachdeva, 2005. Genetic Diversity of pathogenic microorganisms: Basic insights, public health implications and the Indian



- Vollaard, A.M., S. Ali, H.A.G.H. van Asten, S. Widjaja, L.G. Visser, C. Surjadi, J.T. van Dissel, 2004. Risk factors for typhoid and paratyphoid fever in Jakarta, Indonesia. *Journal of the American Medical Association*. 291 (21):2607- 2615. DOI: 10.1001/jama.291.21.2607.
- Vollaard, A.M., S. Ali, H.A.G.H. van Asten, I.S. Ismid, S. Widjaja, L.G. Visser, C. Surjadi, J.T. van Dissel, 2004. Risk factors for transmission of foodborne illness in restaurants and street vendors in Jakarta, Indonesia. *Epidemiology Infection*. 132:863-872. DOI: 10.1017/S0950268804002742.
- Wain J., T.S. Diep, V.A. Ho, A.M. Walsh, T.T.N. Hoa, C.M. Parry, N.J. White. 1998. Quantitation of bacteria in blood of typhoid fever patients and relationship between counts and clinical features, transmissibility, and antibiotic resistance. *Journal of Clinical Microbiology*. 36: 1683-7.
- Wain, J., T.T. Hien, P. Connerton, T. Ali, C.M. Parry, N.T.T. Chinh, H. Vinh, C.X.T. Phuong, V.A. Ho, T.S. Diep, J.J. Farrar, N.J. White, and G. Dougan, 1999. Molecular typing of multiple-Antibiotic-Resistant *Salmonella enterica* serovar Typhi from Vietnam: Application to acute and relapse cases of typhoid fever. *Journal of Clinical Microbiology*. 37 (8): 2466-2472. <http://jcm.asm.org>.
- WHO, 2003. *Background Document: The Diagnosis, Treatment and Prevention of Typhoid Fever*. Communicable Disease Surveillance and Response Vaccines and Biologicals. pp. 1-30; 103-120. <http://www.who.int/CSR/resources/publications/drugresist/IIAMRManual.pdf>. [Diakses tgl: 23 April 2007].
- Winfield, M.D. and E.A. Groisman, 2003. Role of nonhost environments in the lifestyles of *Salmonella* and *Escherichia coli*. *Applied Environmental Microbiology*. 69 (7):3687-3694. DOI: 10.1128/AEM.69.7.3687-3694.2003.
- Woo, P.C.Y., P.K.L. Leung, K.W. Leung and K.Y. Yuen, 2000. Identification by 16S ribosomal RNA gene sequencing of an Enterobacteriaceae species from a bone marrow transplant recipient. *Journal of Clinical Pathology*. 53:211-215. [Diakses tgl: 2 September 2008].
- Woo, P.C.Y., A.M.Y. Fung, S.S.Y. Wong, H.W. Tsoi and K.Y. Yuen, 2001. Isolation and characterization of a *Salmonella enterica* Serotype Typhi variant and its clinical and public health implications. *Journal of Clinical Microbiology*. 39 (3):1190-1194. DOI: 10.1128/JCM.39.3.1190-1194.2001.

- Yu, H., M. Hanes, C.E. Crisp, J.C. Boucher, and V. Deretic. 1998. Microbial Pathogenesis in Cystic Fibrosis: Pulmonary Clearance of Mucoid *Pseudomonas aeruginosa* and Inflammation in a Mouse Model of Repeated Respiratory Challenge. *Infection and Immunity*. 66 (1): 280–288
- Yuwono, D., R. Iswari, A. Syahrurahman, T.A. Pujarwoto, dan Ch. Simanjuntak, 1999. Analisis DNA plasmid yang mengkode gen resisten terhadap kloramfenikol pada beberapa isolat *Salmonella*. *Majalah Kedokteran Indonesia*. 49 (3):89-93.