

DAFTAR PUSTAKA

- Ager, E. A., K. E. Nelson, M. M. Galton, J. Boring III, and J. Jernigan.** 1967. Two outbreaks of egg-borne *Salmonellosis* and implications for their prevention. *JAMA*, 199:372-378 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Altekruse, S. F., M. L. Cohen, and D. L. Swerdlow.** 1997. Emerging foodborne diseases. *Emerging Infect. Dis.* 3:285-293 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Altmeyer, R M., J. K. McNern, J. C. Bossio, B. B. Finlay, and J. E. Galan.** 1993. Cloning and molecular characterization of a gene involved in *Salmonella* adherence and invasion of cultured epithelial cells. *Mol. Microbiol.*, 7:89-98 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Anonymous.** 1997. Recurrent *Salmonella virchow* infection in a hospital group. *Br. Med. J.*, 1:59 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Armstrong, R W., T. Fodor, G. T. Curlin, A. B. Cohen, G. K. Morris, W. T. Martin, and J. Feldman.** 1970. Epidemic salmonella gastroenteritis due to contaminated imitation ice cream. *Am. J. Epidemiol.*, 91:300-307 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Bajaj, V., C. Hwang, and C.A. Lee.** 1995. *hilA* is a novel *ompR/toxR* family member that activates the expression of *Salmonella typhimurium* invasion genes. *Mol. Microbiol.*, 18:715-727 in Darwin, K.H., and Miller, V.L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Bajaj, V., R L. Lucas, C. Hwang, and C. A. Lee.** 1996. Co-ordinate regulation of *Salmonella typhimurium* invasion genes by environmental and regulatory factors is mediated by control of *hilA* expression. *Mol. Microbiol.*, 22:703-714 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Biiumler, A.J.** 1997. The record of horizontal gene transfer in *Salmonella*. *Trends Microbiol.*, 5:318-322 in Darwin, K.H., and Miller, V.L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Biiumler, A. J., and F. Heffron.** 1995. Identification and sequence analysis of *IpfABCDE*, a putative fimbrial operon of *Salmonella typhimurium*. *J. Bacteriol.*, 177:2087-2097 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Biiumler, A. J., R M. Tsohis, and F. Heffron.** 1996. Contribution of fimbrial operons to attachment to and invasion of epithelial cell lines by *Salmonella typhimurium*. *Infect. Immun.*, 64:1862-1865 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Biiumler, A. J., R M. Tsohis, and F. Heffron.** 1997. Fimbrial adhesins of *Salmonella typhimurium*. *Adv. Exp. Med. Biol.*, 412:149-158 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Biiumler, A. J., R M. Tsohis, and J. Heffron.** 1996. The *lpf* fimbrial operon mediates adhesion of *Salmonella typhimurium* to murine Peyer's patches. *Proc. Natl. Acad. Sci., USA* 93:279-283 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Bearson, B. L., W. Lee, and J. W. Foster.** 1998. A low pH-inducible, PhoPQ-dependent acid tolerance response protects *Salmonella typhimurium* against inorganic acid stress. *J. Bacteriol.*, May 1998, p. 2409-2417, Vol. 180, No. 9.

- Behlau, L., and S. I. Miller.** 1993. A PhoP-repressed gene promotes *Salmonella typhimurium* invasion of epithelial cells. *J. Bacteriol.*, 175:4475-4484 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Berkelman, R L., R T. Bryan, M. T. Osterholm, J. W. LeDuc, and J. M. Hughes.** 1994. Infectious disease surveillance: a crumbling foundation. *Science*, 264: 368-370 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Black, P. H., L. J. Kunz, and M. N., Swartz.** 1960. Salmonellosis - a review of some unusual aspects. *N. Engl. J. Med.*, 262:811-816, 846-870, 921-927 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Bockman, D. E.** 1983. Functional histology of appendix. *Arch Histol Cytol.*, 46:271-292 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online*, 47:735-739.
- Bohnhoff, M., C. P. Miller, and W. R Martin.** 1964. Resistance of the mouse's intestinal tract to experimental *Salmonella* infection. II. Factors responsible for its loss following streptomycin treatment. *J. Exp. Med.*, 120:817-828 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Boland, A., M. P. Sory, M. Iriarte, C. Kerbouch, P. Wattiau, and G. R Cornelis.** 1996. Status of YopM and YopN in the *Yersinia* Yop virulon: YopM of *Y. enterocolitica* is internalized inside the cytosol of PU5-1.8 macrophages by the YopB, D, N delivery apparatus. *EMBO J.*, 15:5191-5201 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Borghesi C., Bertelli E., Regoli M, et al.** 1996. Modifications of the FAE by short term exposure to a nonintestinal bacterium. *J Pathol.*, 180:326-332 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online*, 47:735-739.

- Burrows, W.** 1959. Textbook of microbiology, 7th ed. The W. B. Saunders Co., Philadelphia, Pa in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Bye W. A., Allan C. H., Trier J. S.** 1984. Structure, organization and distribution of M cells in Peyer's patches. *Gastroenterology*, 86:789-801 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online*, 47:735-739.
- Carrol, M.E. W., P.S. Jackett, V.R Aber, and D.B. Lowrie.** 1979. Phagolysosome formation, cyclic adenosine 3'5'-monophosphate and the fate of *Salmonella typhimurium* within mouse peritoneal macrophages. *J. Gen Microbiol.*, 110:421-429 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Celum, C. L., R E. Chaisson, G. W. Rutherford, J. L. Barnhart, and D. F. Echenberg.** 1987. Incidence of salmonellosis in patients with AIDS. *J. Infect. Dis.*, 156:998-1002 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Centers for Disease Control and Prevention.** 1992. 1993 Revised classification system for *HIV* infection and expanded surveillance case definition for *AIDS* among adolescents and adults. *Morbid. Mortal. Weekly Rep.* 41:1-19 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Centers for Disease Control and Prevention.** 1991. Multistate outbreak of *Salmonella poona* infections: United States and Canada. *Morbid Mortal. Weekly Rep.* 40:549 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Centers for Disease Control and Prevention.** 1994. *Salmonella* surveillance annual summary 1992. Centers for Disease Control and Prevention, Atlanta Ga in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
-

- Chen, L. M., K. Kaniga, and J. E. Galin.** 1996. *Salmonella* spp. are cytotoxic for cultured macrophages. *Mol. Microbiol.*, 21:1101-1115 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Clegg, S., L. S. Hancox, and K.-S. Yeh.** 1996. *Salmonella typhimurium* fimbrial phase variation and FimA expression. *J. Bacteriol.*, 178:542-545 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Clegg, S., and D. L. Swenson.** 1994. *Salmonella* fimbriae, p. 105-113 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Collazo, C. M., and J. E. Galin.** 1997. The invasion-associated type III system of *Salmonella typhimurium* directs the translocation of the Sip proteins into the host cell. *Mol. Microbiol.*, 24:747-756 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Collazo, C. M., and J. E. Galin.** 1996. Requirement for exported proteins in secretion through the invasion-associated type III system of *Salmonella typhimurium*. *Infect. Immun.*, 64:3524-3531 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Collazo, C. M., M. K. Zierler, and J. E. Galin.** 1995. Functional analysis of the *Salmonella typhimurium* invasion genes *invI* and *invJ* and identification of a target of the protein secretion apparatus encoded in the *inv* locus. *Mol. Microbiol.*, 15:25-38 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Collinson, S. K., P. C. Doig, J. L. Doran, S. Clouthier, T. J. Trust, and W. W. Kay.** 1993. Thin, aggregative fimbriae mediate binding of *Salmonella enteritidis* to fibronectin. *J. Bacteriol.*, 175:12-18 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the
-

intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Collinson, S. IC, L. Emody, IC-H. Müller, T. J. Trust, and W. W. Kay. 1991. Purification of thin, aggregative fimbriae from *Salmonella enteritidis*. *J. Bacteriol.*, 173:4773-4781 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Cornelis, G. R., and H. Wolf-Watz. 1997. The *Yersinia* Yop virulon: a bacterial system for subverting eukaryotic cells. *Mol. Microbiol.*, 23:861-867 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Daefler, S., and M. Russel. 1998. The *Salmonella typhimurium* **InvH** protein is an outer membrane lipoprotein required for the proper localization of **InvG**. *Mol. Microbiol.*, 28:1367-1380 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Departemen Kesehatan RI Data surveilans tahun 1994.1995. Sub Direktorat Surveilans. Jakarta p.43 dalam Widodo, D., dan Hasan, I. 1999. Perkembangan diagnosis laboratorium demam tifoid. *Majalah Kedokteran Indonesia*, Juli 1999, Volume 49, hal 256-262.

Duguid, J. P., E. S. Anderson, and I Campbell. 1966. Fimbriae and adhesive properties in salmonellae. *J. Pathol. Bacteriol.*, 92: 107-138 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Eckmann, L., M. F. Kagnoff, and J. Fierer. 1993. Epithelial cells secrete the chemokine interleukin-8 in response to bacterial entry. *Infect. Immun.*, 61:4569-4574 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Eckmann, L., M. T. Rudolf, A. Ptasnik, C. Schultz, T. Jiang, N. Wolfson, R. Tsien, J. Fierer, S. B. Shears, M. F. Kagnoff, and A. E. Traynor-Kaplan. 1997. D-myo-Inositol 1,4,5,6-tetrakisphosphate produced in human intestinal epithelial cells in response to *Salmonella* invasion inhibits phosphoinositide 3-kinase signaling pathways. *Proc. Natl. Acad. Sci., USA* 94:14456-14460 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Eckmann, L., W. F. Stenson, T. C. Savidge, D. C. Lowe, K. E. Barrett, J. Fierer, J. R. Smith, and M. F. Kagnoff. 1997. Role of intestinal epithelial cells in the host secretory response to infection by invasive bacteria: Bacterial entry induces epithelial prostaglandin H synthase-2 expression and prostaglandin E₂ and F_{2a} production. *J. Clin. Investig.*, 100:296-309 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Eichelberg, K., C. C. Ginocchio, and J. E. Galan. 1994. Molecular and functional characterization of the *Salmonella typhimurium* invasion genes *invB* and *invC*: homology of InvC to the F₀F₁ ATPase family of proteins. *J. Bacteriol.*, 176:4501-4510 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Ernst, R. K., D. M. Dombroski, and J. M. Merrick. 1990. Anaerobiosis, type I fimbriae, and growth phase are factors that affect invasion of HEp-2 cells by *Salmonella typhimurium*. *Infect. Immun.*, 58:2014-2016 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Faddoul, G. P., and G. W. Fellows. 1966. A five-year survey of the incidence of *Salmonella* in avian species. *Avian Dis.*, 10:296-304 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Finlay, B. B. 2000. *Salmonella*. Dr. Brett Finlay's Laboratory.

Finlay, B. B., S. Ruschkowski, and S. Dedhar. 1991. Cytoskeletal rearrangements accompanying *Salmonella* entry into epithelial cells. *J. Cell Sci.*, 99:283-296 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of

the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Firon, N., L Ofek, and N. Sharon. 1984. Carbohydrate-binding sites of the mannose-specific fimbrial lectins of enterobacteria. *Infect. Immun.*, 43: 1088-1090 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Forsberg, Å., A.-M. Viitanen, M. Skurnik, and E Wolf-Watz. 1991. The surface-located YopN protein is involved in calcium signal transduction in *Yersinia pseudotuberculosis*. *Mol. Microbiol.*, 5:977-986 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Francis, C. L., T. A. Ryan, B. D. Jones, S. J. Smith, and S. Falkow. 1993. Ruffles induced by *Salmonella* and other stimuli direct macropinocytosis of bacteria. *Nature*, 364:639-642 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Fromm, D., R A. Giannella, S. B. Formal, R Quijano, and H. Collins. 1974. Ion transport across isolated ileal mucosa invaded by *Salmonella*. *Gastroenterology*, 66:215-225 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Fu, Y., and J. E. Galan. 1998. Identification of a specific chaperone for SptP, a substrate of the centisome 63 type III secretion system of *Salmonella typhimurium*. *J. Bacteriol.*, 180:3393-3399 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Fu, Y., and J. E. Galan. 1998. The *Salmonella typhimurium* tyrosine phosphatase SptP is translocated into host cells and disrupts the actin cytoskeleton. *Mol. Microbiol.*, 27:359-368 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Fujimura, Y.** 1986. Functional morphology of microfold cells (M) in Peyer's patches. Phagocytosis and transport of BCG by M cells into rabbit Peyer's patches. *Gastroenterol Jpn.*, 21:325-330 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online.*, 47:735-739.
- Fujimura Y., and R L. Owen.** 1996. M cells as portals of infection: clinical and pathophysiological aspects. *Infect Agents Dis.*, 5:144-156 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online.*, 47:735-739.
- Galyov, E. E., M. W. Wood, R. Rosqvist, P. B. Mullan, P. R. Watson, S. Hedges, and T. S. Wallis.** 1997. A secreted effector protein of *Salmonella* dublin is translocated into eucaryotic cells and mediates inflammation and fluid secretion in infected ileal mucosa. *Mol. Microbiol.*, 25:903-912 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Gianella, R A.** 2000. *Salmonella*. Medmicro Chapter 21 .htm.
- Giannella, R A.** 1979. Importance of the intestinal inflammatory reaction in *Salmonella*-mediated intestinal secretion. *Infect. Immun.*, 23: 140-145 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Giannella, R A., S. A. Broitman, and N. Zamcheck** 1971. *Salmonella* enteritis. Role of reduced gastric secretion in pathogenesis. *Am. J. Dig. Dis.*, 16:1000-1006 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Giannella, R A., S. B. Formal, G. J. Dammin, and H. Collins.** 1973. Pathogenesis of salmonellosis. Studies of fluid secretion, mucosal invasion, and morphologic reaction in the rabbit ileum. *J. Clin. Investig.*, 52:441-453 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Giannella, R A., R E. Gots, A. N. Charney, W. B. Greenough, and S. B. Formal.** 1975. Pathogenesis of *Salmonella*-mediated intestinal fluid secretion: activation of adenylate cyclase and inhibition by indomethacin. *Gastroenterology*, 69:1238-1245 in Darwin, K. H., and Miller, V. L. 1999.
-

Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Ginocchio, C., J. Pace, and J. E. Galan. 1992. Identification and molecular characterization of a *Salmonella typhimurium* gene involved in triggering the internalization of salmonellae into cultured epithelial cells. *Proc. Natl. Acad. Sci.*, USA 89:5976-5980 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Glaser, M. J., and L. S. Newman. 1982. A review of human salmonellosis. Infective dose. *Rev. Infect. Dis.*, 34:1096-1106 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Gomez, H. F., and G. G. Cleary. 1998. *Salmonella*, 4th ed, vol. 1., Philadelphia, Pa. The W. B. Saunders Co. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Gordon, R F., and J. F. Tucker. 1965. The epizootology of *Salmonella menston* infection of fowls and the effect of feeding poultry food artificially infected with salmonella. *Br. Poultry Sci.*, 6:251-264 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Groisman, E. A., and E. Ochman. 1993. Cognate gene clusters govern invasion of host epithelial cells by *Salmonella typhimurium* and *Shigella flexneri*. *EMBO J.*, 12:3779-3787 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Gulig, P. A., A.L. Caldwell, and V.A. Chiodo. 1992. Identification, genetic analysis and DNA sequence of a 7.8-kb virulence region of the *Salmonella typhimurium* virulence plasmid. *Mol. Microbiol.*, 6:1395-1411 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Gulig, P. A., H. Danbara, D. G. Guiney, A. J. Lax, F. Norel, and M. Rhen.** 1993. Molecular analysis of *spv* virulence genes of the salmonella virulence plasmids. *Mol. Microbiol.*, 7:825-830 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Gunn, J. S., C. M. Alpuche-Aranda, W. P. Loomis, W. J. Belden, and S. L. Miller.** 1995. Characterization of the *Salmonella typhimurium pagC/pagD* chromosomal region. *J. Bacteriol.*, 177:5040-5047 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hackett, J., P. Wyk, P. Reeves, and V. Mathan.** 1987. Mediation of serum resistance in *Salmonella typhimurium* by an 11-kilodalton polypeptide encoded by the cryptic plasmid. *J. Infect. Dis.*, 155:540-549 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hardt, W. D., L. M. Chen, K. E. Schuebel, X. R. Bustelo, and J. E. Galan.** 1998. *S. typhimurium* encodes an activator of rho GTPases that induces membrane ruffling and nuclear responses in host cells. *Cell*, 93:815-826 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hardt, W.-D., and J. E. Galan.** 1997. A secreted *Salmonella* protein with homology to an avirulence determinant of plant pathogenic bacteria. *Proc. Natl. Acad. Sci.*, USA 94:9887-9892 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hardt, W.-D., H. Urlaub, and J. E. Galan.** 1998. A substrate of the centisome 63 type III protein secretion system of *Salmonella typhimurium* is encoded by a cryptic prophage. *Proc. Natl. Acad. Sci.* USA 95:2574-2579 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Hensel, M., J. E. Shea, B. Raupach, D. Monack, S. Falkow, C. Gleeson, T. Kubo, and D. W. Holden.** 1997. Functional analysis of *sdaJ* and the *ssaK/U* operon, 13 genes encoding components of the **type III** secretion apparatus of *Salmonella* pathogenicity island 2. *Mol. Microbiol.*, **24**: 155-167 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hohmann, A. W., G. Schmidt, and D. Rowley.** 1978. Intestinal colonization and virulence of *Salmonella* in mice. *Infect. Immun.*, **22**:763-770 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hong, K. H., and V.L. Miller.** 1998. Identification of a novel *Salmonella* invasion locus homologous to *Shigella ipgDE*. *J. Bacteriol.*, **180**:1793-1802 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hook, **E. W.** 1990. *Salmonella* species (including typhoid fever), 3rd ed. New York, N.Y. Churchill Livingstone, Inc. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hueck, C. J.** 1998. Type **III** protein secretion in bacterial pathogens of animals and plants. *Microbiol. Mol. Biol. Rev.*, **62**:379-433 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Hueck, C. J., M. J. Hantman, V. Bajaj, C. Johnston, C. A. Lee, and S. L. Miller.** 1995. *Salmonella typhimurium* secreted invasion determinants are homologous to *Shigella Ipa* proteins. *Mol. Microbiol.*, **18**:479-490 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Institute of Medicine.** 1992. Emerging infections: microbial threats to health in the United States. *National Academy Press*, Washington, D.C. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella*
-

with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Jawetz, M., and Adelberg. 1996. *Mikrobiologi Kedokteran*. Jakarta: EGC.

Jepson, M.A., and M. A. Clark. 1998. Studying M cells and their role in infections. *Trends Microbiol.*, 6:359-365 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online.*, 47:735-739.

Johnston, C., D. A. Pegues, C. J. Hueck, C. A. Lee, and S. L. Miller. 1996. Transcriptional activation of *Salmonella typhimurium* invasion genes by a member of the phosphorylated response-regulator superfamily. *Mol. Microbiol.*, 22:715-727 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Jones, B. D., and S. Falkow. 1994. Identification and characterization of a *Salmonella typhimurium* oxygen-regulated gene required for bacterial internalization. *Infect. Immun.*, 62:3745-3752 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Jones, B. D., N. Ghori, and S. Falkow. 1994. *Salmonella typhimurium* initiates murine infection by penetrating and destroying the M cells of the Peyer's patches. *J. Exp. Med.*, 180:15-23 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Kaniga, K., J. C. Bossio, and J. E. Galan. 1994. The *Salmonella typhimurium* invasion genes *invF* and *invG* encode homologues of the **AraC** and PulD family of proteins. *Mol. Microbiol.*, 13:555-568 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Kaniga, K., D. Trollinger, and J. E. Galan. 1995. Identification of two **targets** of the **type III** protein secretion system encoded by the *inv* and *spa* loci of *Salmonella typhimurium* that have homology to the *Shigella* **IpaD** and **IpaA** proteins. *J. Bacteriol.*, 177:7078-7085 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Kaniga IC, S. Tucker, D. Trollinger, and J. E. Galan.** 1995. Homologs of the *Shigella* IpaB and IpaC invasins are required for *Salmonella typhimurium* entry into cultured epithelial cells. *J. Bacteriol.*, 177:3965-3971 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Kaniga, IC, J. Uralil, J. B. Bliska, and J. E. Galan.** 1996. A secreted protein tyrosine phosphatase with modular effector domains in the bacterial pathogen *Salmonella typhimurium*. *Mol. Microbiol.* 21:633-641 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Kimberg, D. V., M. Field, J. Johnson, A. Henderson, and E. Gershon.** 1971. Stimulation of intestinal mucosal adenylate cyclase by cholera enterotoxin and prostaglandins. *J. Clin. Investig.*, 50:1218-1230 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Klemm, P., and K. A. Krogfelt.** 1994. **Type 1** fimbriae of *Escherichia coli*, p. 9-26 in P. Klemm (ed.), *Fimbriae: adhesion, genetics, biogenesis, and vaccines*. Boca Raton, Fla. CRC Press, Inc. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Kohbata, S., H. Yokoyama, and E. Yabuuchi.** 1986. Cytopathogenic effect of *Salmonella typhi* GIFU 10007 on M cells of murine ileal peyer's patches in ligated ileal loops: an ultrastructural study. *Microbiol. Immunol.*, 30:1225-1237 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Korhonen, T. K., K. Lounatmaa, H. Ranta, and N. Kuusi.** 1980. Characterization of type I pili of *Salmonella typhimurium* LT2. *J. Bacteriol.*, 144:800-805 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
-

- Kubori, T., Y. Matsushima, D. Nakamura, J. Uralil, M. Lara-Tejero, A. Sukhan, J. E. Galan, and S.-L. Aizawa.** 1998. Supramolecular structure of the *Salmonella typhimurium* type III protein secretion system. *Science*, 280:602-605 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Lee, C. A., and S. Falkow.** 1990. The ability of *Salmonella* to enter mammalian cells is affected by bacterial **growth** state. *Proc. Natl. Acad. Sci., USA* 87:4304-4308 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Lee, C. A., B. D. Jones, and S. Falkow.** 1992. Identification of a *Salmonella typhimurium* invasion locus by selection for hyperinvasive mutants. *Proc. Natl. Acad. Sci., USA* 89:1847-1851 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Lill, R., K. Cunningham, L. A. Brundage, K. Ito, D. Oliver, and W. Wickner.** 1989. SecA protein hydrolyzes ATP and is an essential component of the protein translocation ATPase of *Escherichia coli*. *EMBO J.*, 8:961-966 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Lockman, H. A., and R. Curtiss, III.** 1992. Virulence of non-type I-fimbriated and nonfimbriated nonflagellated *Salmonella typhimurium* mutants in murine typhoid fever. *Infect. Immun.*, 60:491-496 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Lodge, J., G. R. Douce, L. L. Amin, A. J. Bolton, G. D. Martin, S. Chatfield, G. Dougan, N. L. Brown, and J. Stephen.** 1995. Biological and genetic characterization of *TnphoA* mutants of *Salmonella typhimurium* TML in the context of gastroenteritis. *Infect. Immun.*, 63:762-769 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
-

- Magnuson, K. , S. Jackowski, C. O. Rock, and J. Cronan.** 1993. Regulation of fatty acid biosynthesis in *Escherichia coli*. *Microbiol. Rev.*, 57:522-542 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Marks, P. W., and F. R. Maxfield.** 1990. Local and global changes in cytosolic free calcium in neutrophils during chemotaxis and phagocytosis. *Cell Calcium*, 11:181-190 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- McCormick, B. A., S. P. Colgan, C. Delp-Archer, S. L Miller, and J. L. Madara.** 1993. *Salmonella typhimurium* attachment to human intestinal epithelial monolayers: transcellular signalling to subepithelial neutrophils. *J. Cell Biol.*, 123:895-907 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- McCormick, B.A., S.I. Miller, D.Carnes, and J.L. Madara.** 1995. Transepithelial signaling to neutrophils by salmonellae: a novel virulence mechanism for gastroenteritis. *Infect. Immun.*, 63:2302-2309 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- McCullough, N. B., and C. W. Eisele** 1951. Experimental human salmonellosis. Pathogenicity of strains of *Salmonella meleagridis* and *Salmonella anatum* obtained from spray-dried whole egg. *J. Infect. Dis.*, 88:278-289 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- McCullough, N. B., and C. W. Eisele** 1951. Experimental human salmonellosis. Pathogenicity of strains of *Salmonella newport*, *Salmonella derby*, and *Salmonella bareilly* obtained from spray-dried whole egg. *J. Infect. Dis.*, 89:209-213 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- McCullough, N. B., and C. W. Eisele.** 1951. Experimental human salmonellosis. Pathogenicity of strains of *Salmonella pullorum* obtained from spraydried whole egg. *J. Infect. Dis.*, 89:259-265 in Darwin, K. H., and
-

- Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- McWhorter-Murlin, A. C., and F. W. Hickman-Brenner.** 1994. Identification and serotyping of *Salmonella* and an update of the Kauffmann-Whitescheme. Atlanta, Ga. Centers for Disease Control and Prevention. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No.]
- Miller, S. L., A. M. Kukral, and J. J. Mekalanos.** 1989. A two-component regulatory system (*phoP phoQ*) controls *Salmonella typhimurium* virulence. *Proc. Natl. Acad. Sci.*, USA 86:5054-5058 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Miller, V. L., J. B. Bliska, and S. Falkow.** 1990. Nucleotide sequence of the *Yersinia enterocolitica ail* gene and characterization of the Ail protein product. *J. Bacteriol.*, 172:1062-1069 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Miller, V. L., and S. Falkow.** 1988. Evidence for two genetic loci in *Yersinia enterocolitica* that can promote invasion of epithelial cells. *Infect. Immun.*, 56:1242-1248 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Mills, D. M., V. Bajaj, and C. A. Lee.** 1995. A 40 kb chromosomal fragment encoding *Salmonella typhimurium* invasion genes is absent from the corresponding region of the *Escherichia coli* K-12 chromosome. *Mol. Microbiol.*, 15:749-759 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Miras, L., D. Hermant, N. Arricau, and M. Y. Popoff.** 1995. Nucleotide sequence of *iagA* and *iagB* genes involved in invasion of HeLa cells by *Salmonella enterica* subsp. *enterica* ser. Typhi. *Res. Microbiol.*, 146: 17-20 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of
-

Salmonella with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Mishu, B., J. Koehler, L. A. Lee, D. Rodrigue, F. Hickman-Brenner, P. Blake, and R. V. Tauxe. 1994. Outbreaks of *Salmonella enteritidis* infections in the United States, 1985-1991. *J. Infect. Dis.*, 169:547-552 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Monack, D. M., B. Raupach, A. E. Hromockyj, and S. Falkow. 1996. *Salmonella typhimurium* invasion induces apoptosis in infected macrophages. *Proc. Natl. Acad. Sci.*, USA 93:9833-9838 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Neutra M. R 1998. Current concepts in mucosal immunity. Role of M cells in transepithelial transport of antigens and pathogens to the intestinal immune system. *Am J Physiol.*, 274:G785-G791 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online.*, 47:735-739.

Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online.*, 47:735-739.

O'Brien, A. D., and R. K. Holmes. 1996. Protein toxins of *Escherichia coli* and *Salmonella*, p. 2788-2802 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Peel, B. 1976. Occurrence of *Salmonella* in raw and pasteurized liquid whole egg. Queensl. *J. Agric. Anim. Sci.*, 33:13-21 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Regues, D. A., M. J. Hantman, L. Behlau, and S. L. Miller. 1995. PhoP/PhoQ transcriptional repression of *Salmonella typhimurium* invasion genes: evidence for a role in protein secretion. *Mol. Microbiol.*, 17:169-181 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Penheiter, K. L., N. Mathur, D. Giles, T. Fahlen, and B. D. Jones. **1997**. Non-invasive *Salmonella typhimurium* mutants are avirulent because of an inability to enter and destroy M cells of ileal Peyer's patches. *Mol. Microbiol.*, **24:697-709** in Darwin, K. H., and Miller, V. L. **1999**. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July **1999**, p. **405-428**, Vol. **12**, No. **3**.
- Peterson, J. W. 2000. Bacterial Pathogenesis. Medmicro Chapter 7.htm.
- Prost, E., and H. Riemann. **1967**. Food-borne salmonellosis. *Annu Rev. Microbiol.*, **23:495-528** in Darwin, K. H., and Miller, V. L. **1999**. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July **1999**, p. **405-428**, Vol. **12**, No. **3**.
- Pugsley, A. P. **1993**. The complete general secretory pathway in gram-negative bacteria. *Microbiol. Rev.*, **57:50-108** in Darwin, K. H., and Miller, V. L. **1999**. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July **1999**, p. **405-428**, Vol. **12**, No. **3**.
- Regoli M, Bertelli E, Borghesi C, et al. **1995**. Three (3D)-reconstruction of M cells in rabbit Peyer's patches: definition of intraepithelial compartment of the follicle-associated epithelium. *Anat Rec.*, **243:19-26** in Nicoletti, C. **2000**. Unsolved mysteries of intestinal M cells (Review). *Gut online*. **47:735-739**.
- Riley, L. W., M. L. Cohen, J. E. Seals, J. J. Blaser, K. A. Birkness, N. T. Hargrett, S. M. Martin, and R. A. Feldman. **1984**. Importance of host factors in human salmonellosis caused by multiresistant strains of *Salmonella*. *J. Infect. Dis.*, **149:878-883** in Darwin, K. H., and Miller, V. L. **1999**. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July **1999**, p. **405-428**, Vol. **12**, No. **3**.
- Rodrigue, D. C., R. V. Tauxe, and B. Rowe. **1990**. International increase in *Salmonella enteritidis*: a new pandemic? *Epidemiol. Infect.*, **105:21-27** in Darwin, K. H., and Miller, V. L. **1999**. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July **1999**, p. **405-428**, Vol. **12**, No. **3**.
- Romling, U., Z. Bian, M. Hammar, W. D. Sierralta, and S. Normark. **1998**. Curli fibers are highly conserved between *Salmonella typhimurium* and *Escherichia coli* with respect to operon structure and regulation. *J. Bacteriol.*, **180:722-731** in Darwin, K. H., and Miller, V. L. **1999**. Molecular basis of the

interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Rout, W.R., S.B. Formal, G.J. Dammin, and R.A. Giannella. 1974. Pathophysiology of salmonella diarrhea in the Rhesus monkey: intestinal transport, morphological and bacteriological studies. *Gastroenterology*, 67:59-70 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Ryan, C. A., M. K. Nickels, N. T. Hargrett-Bean, M. E. Potter, T. Endo, L. Mayer, C. W. Langkop, C. Gibson, R. C. McDonald, R. T. Kenney, N. D. Puhr, P. J. McDonnell, R. J. Martin, M. L. Cohen, and P. A. Blake. 1987. Massive outbreak of antimicrobial-resistant salmonellosis traced to pasteurized milk. *JAMA*, 258:3269-3274 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Salyers, A. A., and Whitt, D. D. 1995. *Bacterial Pathogenesis: A Molecular Approach*. Washington, D. C.: ASM Press.

Sanderson, K. E., A. Hessel, and K. E. Rudd. 1995. Genetic map of *Salmonella typhimurium*, edition VIII. *Microbiol. Rev.*, 59:241-303 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Simanjuntak, C. E. Demam tifoid, epidemiologi dan perkembangan penelitiannya. *Cermin Dunia Kedokteran*, 1993; 83:52-4 dalam Widodo, D., dan Hasan, I. 1999. Perkembangan diagnosis laboratorium demam tifoid. *Majalah Kedokteran Indonesia*, Juli 1999, Volume 49, hal. 256-262.

Simanjuntak, C.H. Masalah demam tifoid di Indonesia. *Cermin Dunia Kedokteran*, 1990; 60:31-4 dalam Widodo, D., dan Hasan, I. 1999. Perkembangan diagnosis laboratorium demam tifoid. *Majalah Kedokteran Indonesia*, Juli 1999, Volume 49, hal 256-262.

Snoeyenbos, G. E., C. F. Smyser, and E. Van Roekel. 1969. *Salmonella* infections of the ovary and peritoneum of chickens. *Avian Dis.*, 13:668-670 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

- Steere, A. C., W. J. Hall III, J. G. Wells, P. J. Craven, N. Leotsakis, J. J. I. Farmer III, and E. J. Gangarosa.** 1975. Person-to-person spread of *Salmonella typhimurium* after a hospital common source outbreak. *Lancet*, i:319-321 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- St. Louis, M. E., D. L. Morse, M. E. Potter, T. M. DeMelfi, J. J. Guzewich, R. V. Tauxe, and P. A. Blake.** 1988. The emergence of grade A shell eggs as a major source of *Salmonella enteritidis* infections: new implications for the control of salmonellosis. *JAMA*, 259:2103-2107 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Stone, B. J., C. M. Garcia, J. L. Badger, T. Hassett, R L F. Smith, and V. L. Miller.** 1992. Identification of novel loci affecting entry of *Salmonella enteritidis* into eukaryotic cells. *J. Bacteriol.*, 174:3945-3952 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Sudarmono P.** 1999. Features of typhoid fever in Indonesia. in: Pang T., Koh CL., Puthuchaery. *Typhoid Fever: Strategies for the 90's. Selected papers from the first Asia-Pacific Symposium on typhoid fever.* Singapore. World Scientific 1992. p.11-6 dalam Widodo, D., dan Hasan, I. Perkembangan Diagnosis laboratorium demam tifoid. *Majalah Kedokteran Indonesia*, Juli 1999, Volume 49, hal 256-262.
- Takeuchi, A.** 1967. Electron microscope studies of experimental *Salmonella* infection. I. Penetration into the intestinal epithelium by *Salmonella typhimurium*. *Am. J. Pathol.*, 50:109-119 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Takeuchi, A., and H. Sprinz** 1967. Electron-microscope studies of experimental *Salmonella* infection in the preconditioned guinea pig. II. Response of the intestinal mucosa to the invasion by *Salmonella typhimurium*. *Am J. Pathol.*, 50:137-161 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
-

- Tauxe, R V.** 1991. Transmission of human bacterial pathogens through poultry (banquet address). New York, N.Y. Academic Press, Inc. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Tauxe, R V.** 1996. *An update on Salmonella. Health Environ Dig. 10:1-4* in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Tauxe, R V., and J. M. Hughes.** 1996. International investigation of outbreaks of foodborne disease. *Br. Med. J.*, 313:1093-1094 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Tauxe, R V., and A. T. Pavia.** 1998. Salmonellosis: nontyphoidal, p. 613-630. in A. S. Evans, and P. S. Brachman (ed.), *Bacterial infections of humans: epidemiology and control*. 3rd ed. New York, N.Y. Plenum Medical Book Co. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Thatcher, F. S., and J. Montford.** 1962. Egg products as a source of *Salmonella* in processed foods. *Can. J. Public Health*, 53:61-69 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Todar, K.** 1998. Mechanisms of bacterial pathogenicity. University of Wisconsin Department of Bacteriology, November 1998.
- Turnbull, P. C. B.** 1979. Food poisoning with special reference to *Salmonella* – its epidemiology, pathogenesis and control. *Clin Gastroenterol.*, 8:663-7 14 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
-

- van der Velden, A. W. M., A. J. Baumler, R M. Tsois, and F. Heffron.** 1998. Multiple fimbrial adhesins are required for full virulence of *Salmonella typhimurium* in mice. *Infect. Immun.*, 66:2803-2808 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Voino-Yasenetsky, M. V.** 1977. Problems of the pathogenesis of *Salmonella* infection. Akademiai Kiado, Budapest, Hungary in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Waddell, S. R., and L. J. Kunz** 1956. Association of *Salmonella enteritidis* with operations on the stomach. *N. Engl. J. Med.*, 255:555-559 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Wallis, T. S., R J. E Hawker, D. C. A. Candy, G.-M. Qi, G. J. Clarke, K. J. Worton, M. P. Osborne, and J. Stephen.** 1989. Quantification of the leucocyte influx into rabbit ileal loops induced by strains of *Salmonella typhimurium* of different virulence. *J. Med. Microbiol.*, 30:149-156 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Wallis, T. S., S. M. Paulin, J. S. Plested, P. R Watson, and P. W. Jones.** 1995. The *Salmonella dublin* virulence plasmid mediates systemic but not enteric phases of salmonellosis in cattle. *Infect. Immun.*, 63:2755-2761 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Wallis, T. S., W. G. Starkey, J. Stephen, S. J. Haddon, M. P. Osborne, and D. C.A. Candy.** 1986. The nature and role of mucosal damage in relation to *Salmonella typhimurium*-induced fluid secretion in the rabbit ileum. *J. Med. Microbiol.* 22:39-49 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
-

- Watson, P. R., E. E. Galyov, S. M. Paulin, P. W. Jones, and T. S. Wallis.** 1998. Mutation of *invH*, but not *stn*, reduces Salmonella-induced enteritis in cattle. *Infect. Immun.* 66:1432-1438 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Watson, P. R., S. M. Paulin, P. Bland, P. W. Jones, and T. S. Wallis.** 1995. Characterization of intestinal invasion by *Salmonella typhimurium* and *Salmonella dublin* and effect of a mutation in the *invH* gene. *Infect. Immun.* 63:2743-2754 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Whimbey, E., J. W. M. Gold, B. Polsky, J. Dryjanski, C. Hawkins, A. Blevins, P. Brannon, T. E. Kiehn, A. E. Brown, and D. Armstrong.** 1986. Bacteremia and fungemia in patients with the acquired immunodeficiency syndrome. *Ann. Intern. Med.* 104:511-514 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Widodo, D., dan Hasan, L** 1999. Perkembangan Qagnosis laboratorium demam tifoid. *Majalah Kedokteran Indonesia*, Juli 1999, Volume 49, hal 256-262.
- Wilson, R., R A. Feldman, J. Davis, and M. LaVenture.** 1982. Salmonellosis in infants: the importance of intrafamilial transmission. *Pediatrics* 69:436-438 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
- Wolf, J. L., and W. A. Bye.** 1984. The membranous (M)epithelial cells and the mucosal immune system. *Annu Rev Med.* 35:95-112 in Nicoletti, C. 2000. Unsolved mysteries of intestinal M cells (Review). *Gut online.*, 47:735-739.
- Yokoyama, E., M. Ikedo, S. Kohbata, T. Exaki, and E. Yabuuchi.** 1987. An ultrastructural study of HeLa cell invasion with *Salmonella typhi* GIFU 10007. *Microbiol. Immunol.* 31:1-11 in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.

Ziprin, R L. 1994. *Salmonella*, vol. 1. New York, N.Y. Marcel Dekker, Inc. in Darwin, K. H., and Miller, V. L. 1999. Molecular basis of the interaction of *Salmonella* with the intestinal mucosa. *Clinical Microbiology Reviews*, July 1999, p. 405-428, Vol. 12, No. 3.
