

## DAFTAR PUSTAKA

- Acaroglu, E., Akel, I., Alanay, A., Yazici, M. dan Marcucio, R. 2009. 'Comparison of the melatonin and calmodulin in paravertebral muscle and platelets of patients with or without adolescent idiopathic scoliosis'. *Spine* (on-line), 34. <http://dx.doi.org/10.1097/BRS.0b013e3181a3c7a2>.
- Asher, M. A. dan Burton, D. C. 2006. 'Adolescent idiopathic scoliosis: natural history and long term treatment effects'. *Scoliosis and Spinal Disorders*, 1: 2.
- Barber, R. D., Harmer, D. W., Coleman, R. A. dan Clark, B. J. 2005. 'GAPDH as a housekeeping gene: analysis of GAPDH mRNA expression in a panel of 72 human tissues'. *Physiological Genomics*, 21: 389–395.
- Borbolis, F. dan Syntichaki, P. 2015. 'Cytoplasmic mRNA turnover and ageing'. *Mechanisms of Ageing and Development*, 152: 32–42.
- Burton, D. C., Carlson, B. B., Place, H. M., Fuller, J. E., Blanke, K., Cho, R., Fu, K.-M., Ganju, A., Heary, R., Herrera-Soto, J. A., Larson, A. N., Lavelle, W. F., Nelson, I. W., Vernengo-Lezica, A. dan Verska, J. M. 2016. 'Results of the Scoliosis Research Society Morbidity and Mortality Database 2009–2012: A Report From the Morbidity and Mortality Committee'. *Spine Deformity*, 4: 338–343.
- Burton, M. S. 2013. 'Diagnosis and Treatment of Adolescent Idiopathic Scoliosis'. *Pediatric Annals*, 42: e233–e237.
- Burwell, R. G., Clark, E. M., Dangerfield, P. H. dan Moulton, A. 2016. 'Adolescent idiopathic scoliosis (AIS): a multifactorial cascade concept for pathogenesis and embryonic origin'. *Scoliosis and Spinal Disorders*, 11: 8.
- Burwell, R. G., Dangerfield, P. H. dan Freeman, B. J. C. 2008. 'Concepts on the pathogenesis of adolescent idiopathic scoliosis. Bone growth and mass, vertebral column, spinal cord, brain, skull, extra-spinal left-right skeletal length asymmetries, disproportions and molecular pathogenesis'. *Stud Health Technol Inform*, 135.
- Burwell, R. G., Dangerfield, P. H., Moulton, A. dan Grivas, T. B. 2011. 'Adolescent idiopathic scoliosis (AIS), environment, exposome and epigenetics: a molecular perspective of postnatal normal spinal growth and the etiopathogenesis of AIS with consideration of a network approach and possible implications for medical therapy'. *Scoliosis*, 6: 26.

- Cao, Y., Min, J., Zhang, Q., Li, H. dan Li, H. 2016. 'Associations of LBX1 gene and adolescent idiopathic scoliosis susceptibility: a meta-analysis based on 34,626 subjects'. *BMC Musculoskeletal Disorders*, 17: 309.
- Cheung, C. S., Lee, W. T., Tse, Y. K., Lee, K. M., Guo, X. dan Qin, L. 2006. 'Generalized osteopenia in adolescent idiopathic scoliosis--association with abnormal pubertal growth, bone turnover, and calcium intake?'. *Spine* (on-line), 31. <http://dx.doi.org/10.1097/01.brs.0000197410.92525.10>.
- Cheung, K. M., Wang, T., Poon, A. M., Carl, A., Tranmer, B. dan Hu, Y. 2005. 'The effect of pinealectomy on scoliosis development in young nonhuman primates'. *Spine* (on-line), 30. <http://dx.doi.org/10.1097/01.brs.0000179087.38730.5d>.
- Chu, W. C., Lam, W. W., Chan, Y. L., Ng, B. K., Lam, T. P. dan Lee, K. M. 2006. 'Relative shortening and functional tethering of spinal cord in adolescent idiopathic scoliosis?: study with multiplanar reformat magnetic resonance imaging and somatosensory evoked potential'. *Spine* (on-line), 31. <http://dx.doi.org/10.1097/01.brs.0000193892.20764.51>.
- Chu, W. C. W., Lam, W. W. M., Ng, B. K. W., Lam, T.-. p., Lee, K.-. m., Guo, X., Cheng, J. C. Y., Burwell, R. G., Dangerfield, P. H. dan Jaspan, T. 2008. 'Relative shortening and functional tethering of spinal cord in adolescent scoliosis – Result of asynchronous neuro-osseous growth? Summary of an electronic focus group debate of the IBSE'. *Scoliosis*, 3:8.
- Cilli, K., Tezeren, G., Taş, T., Bulut, O., Oztürk, H., Oztemur, Z. dan Unsaldi, T. 2009. '[School screening for scoliosis in Sivas, Turkey]'. *Acta Orthopaedica Et Traumatologica Turcica*, 43: 426–430.
- Coe, J. D., Arlet, V., Donaldson, W., Berven, S., Hanson, D. S., Mudiyan, R., Perra, J. H. dan Shaffrey, C. I. 2006. 'Complications in spinal fusion for adolescent idiopathic scoliosis in the new millennium. A report of the Scoliosis Research Society Morbidity and Mortality Committee'. *Spine*, 31: 345–349.
- Daruwalla, J. S., Balasubramaniam, P., Chay, S. O., Rajan, U. dan Lee, H. P. 1985. 'Idiopathic scoliosis. Prevalence and ethnic distribution in Singapore schoolchildren'. *The Journal of Bone and Joint Surgery. British Volume*, 67: 182–184.
- Defino, H. L. A. dan Araújo, P. H. M. de. 2004. 'Comparative study of the measurements of the vertebral rotation using Nash & Moe and Raimondi methods'. *Acta Ortopédica Brasileira*, 12: 167–173.

- Dickson, R. A., Lawton, J. O., Archer, I. A. dan Butt, W. P. 1984. 'The pathogenesis of idiopathic scoliosis. Biplanar spinal asymmetry'. *J Bone Joint Surg Br*, 66.
- Evers, D. L., Fowler, C. B., Cunningham, B. R., Mason, J. T. dan O'Leary, T. J. 2011. 'The Effect of Formaldehyde Fixation on RNA'. *The Journal of Molecular Diagnostics : JMD*, 13: 282–288.
- Fagan, A. B., Kennaway, D. J. dan Sutherland, A. D. 1998. 'Total 24-hour melatonin secretion in adolescent idiopathic scoliosis. A case–control study'. *Spine (on-line)*, 23. <http://dx.doi.org/10.1097/00007632-199801010-00009>.
- Fan, Y.-H., Song, Y.-Q., Chan, D., Takahashi, Y., Ikegawa, S., Matsumoto, M., Kou, I., Cheah, K. S. E., Sham, P., Cheung, K. M. C. dan Luk, K. D. K. 2012. 'SNP rs11190870 near LBX1 is associated with adolescent idiopathic scoliosis in southern Chinese'. *Journal of Human Genetics*, 57: 244–246.
- Feldman, M. Y. 1973. 'Reactions of nucleic acids and nucleoproteins with formaldehyde'. *Progress in Nucleic Acid Research and Molecular Biology*, 13: 1–49.
- Ford, D. M., Bagnall, K. M., McFadden, K. D., Greenhill, B. J. dan Raso, V. J. 1984. 'Paraspinal muscle imbalance in adolescent idiopathic scoliosis'. *Spine*, 9: 373–376.
- Grauers, A., Einarsdottir, E. dan Gerdhem, P. 2016. 'Genetics and pathogenesis of idiopathic scoliosis'. *Scoliosis and Spinal Disorders*, 11: 45.
- Grauers, A., Wang, J., Einarsdottir, E., Simony, A., Danielsson, A., Åkesson, K., Ohlin, A., Halldin, K., Grabowski, P., Tenne, M., Laivuori, H., Dahlman, I., Andersen, M., Christensen, S. B., Karlsson, M. K., Jiao, H., Kere, J. dan Gerdhem, P. 2015. 'Candidate gene analysis and exome sequencing confirm LBX1 as a susceptibility gene for idiopathic scoliosis'. *The Spine Journal: Official Journal of the North American Spine Society*, 15: 2239–2246.
- Gross, M. K., Dottori, M. dan Goulding, M. 2012. 'Lbx1 specifies somatosensory association interneurons in the dorsal spinal cord'. *Neuron (on-line)*, 34. [http://dx.doi.org/10.1016/S0896-6273\(02\)00690-6](http://dx.doi.org/10.1016/S0896-6273(02)00690-6).
- Guo, L., Yamashita, H., Kou, I., Takimoto, A., Meguro-Horike, M., Horike, S., Sakuma, T., Miura, S., Adachi, T., Yamamoto, T., Ikegawa, S., Hiraki, Y. dan Shukunami, C. 2016. 'Functional Investigation of a Non-coding Variant Associated with Adolescent Idiopathic Scoliosis in Zebrafish: Elevated

Expression of the Ladybird Homeobox Gene Causes Body Axis Deformation' K.S. Cheah (ed.). *PLoS Genetics*, 12: e1005802.

- Guo, X., Chau, W. W., Chan, Y. L. dan Cheng, J. C. 2003. 'Relative anterior spinal overgrowth in adolescent idiopathic scoliosis. Results of disproportionate endochondral-membranous bone growth'. *J Bone Joint Surg Br* (on-line), 85. <http://dx.doi.org/10.1302/0301-620X.85B7.14046>.
- Hebela, N. M. dan Tortolani, P. J. 2009. 'Idiopathic Scoliosis in Adults: Classification, Indications, and Treatment Options'. *Seminars in Spine Surgery*, 21: 16–23.
- Hefti, F. 2013. 'Pathogenesis and biomechanics of adolescent idiopathic scoliosis (AIS)'. *Journal of Children's Orthopaedics*, 7: 17–24.
- Hwang, S. W., Samdani, A. F., Marks, M., Bastrom, T., Garg, H., Lonner, B., Bennett, J. T., Pahys, J., Shah, S., Miyajima, F., Shufflebarger, H., Newton, P. dan Betz, R. 2013. 'Five-year clinical and radiographic outcomes using pedicle screw only constructs in the treatment of adolescent idiopathic scoliosis'. *European Spine Journal: Official Publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*, 22: 1292–1299.
- Jagla, K., Dollé, P., Mattei, M.-G., Jagla, T., Schuhbaur, B., Dretzen, G., Bellard, F. dan Bellard, M. 1995. 'Mouse Lbx1 and human LBX1 define a novel mammalian homeobox gene family related to the Drosophila lady bird genes'. *Mechanisms of Development*, 53: 345–356.
- Jiang, H., Qiu, X., Dai, J., Yan, H., Zhu, Z., Qian, B. dan Qiu, Y. 2013. 'Association of rs11190870 near LBX1 with adolescent idiopathic scoliosis susceptibility in a Han Chinese population'. *European Spine Journal: Official Publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*, 22: 282–286.
- Kamtsiuris, P., Atzpodien, K., Ellert, U., Schlack, R. dan Schlaud, M. 2007. 'Prevalence of somatic diseases in German children and adolescents. Results of the German Health Interview and Examination Survey for Children and Adolescents (KiGGS)'. *Bundesgesundheitsblatt, Gesundheitsforschung, Gesundheitsschutz*, 50: 686–700.
- Kesling, K. L. dan Reinker, K. A. 1997. 'Scoliosis in twins. A meta-analysis of the literature and report of six cases'. *Spine (Phila Pa 1976)* (on-line), 22. <http://dx.doi.org/10.1097/00007632-199709010-00014>.

- Konieczny, M. R., Senyurt, H. dan Krauspe, R. 2013. 'Epidemiology of adolescent idiopathic scoliosis'. *Journal of Children's Orthopaedics*, 7: 3–9.
- Kouwenhoven, J.-W. M. dan Castelein, R. M. 2008. 'The pathogenesis of adolescent idiopathic scoliosis: review of the literature'. *Spine*, 33: 2898–2908.
- Kudo, D., Miyakoshi, N., Hongo, M., Matsumoto-Miyai, K., Kasukawa, Y., Misawa, A., Ishikawa, Y. dan Shimada, Y. 2013. 'LBX1 mRNA expression in paravertebral muscles of patients with adolescent idiopathic scoliosis: a preliminary study'. *Akita J. Med.*, 40: 151–156.
- Kusumi, K. dan Dunwoodie, S. L. 2010. *The genetics and development of scoliosis*. New York: Springer.
- Lemeshow, S., Hosmer, D. W., Klar, J., Lwanga, S. K. dan World Health Organization. 1990. *Adequacy of sample size in health studies*. Chichester: Published on behalf of the World health organization by John Wiley & Sons.
- Lenke, L. G., Betz, R. R., Harms, J., Bridwell, K. H., Clements, D. H., Lowe, T. G. dan Blanke, K. 2001. 'Adolescent idiopathic scoliosis: a new classification to determine extent of spinal arthrodesis'. *The Journal of Bone and Joint Surgery. American Volume*, 83–A: 1169–1181.
- Liang, J., Xing, D., Li, Z., Chua, S. dan Li, S. 2014. 'Association Between rs11190870 Polymorphism Near LBX1 and Susceptibility to Adolescent Idiopathic Scoliosis in East Asian Population: A Genetic Meta-Analysis'. *Spine*.
- Londono, D., Kou, I., Johnson, T. A., Sharma, S., Ogura, Y., Tsunoda, T., Takahashi, A., Matsumoto, M., Herring, J. A., Lam, T.-P., Wang, X., Tam, E. M. S., Song, Y.-Q., Fan, Y.-H., Chan, D., Cheah, K. S. E., Qiu, X., Jiang, H., Huang, D., Japanese Scoliosis Clinical Research Group, TSRHC IS Clinical Group, null, International Consortium for Scoliosis Genetics, null, Su, P., Sham, P., Cheung, K. M. C., Luk, K. D. K., Gordon, D., Qiu, Y., Cheng, J., Tang, N., Ikegawa, S. dan Wise, C. A. 2014. 'A meta-analysis identifies adolescent idiopathic scoliosis association with LBX1 locus in multiple ethnic groups'. *Journal of Medical Genetics*, 51: 401–406.
- Lonstein, J. E. dan Carlson, J. M. 1984. 'The prediction of curve progression in untreated idiopathic scoliosis during growth'. *J Bone Joint Surg Am* (online), 66. <http://dx.doi.org/10.2106/00004623-198466070-00013>.

- Lowe, T., Berven, S. H., Schwab, F. J. dan Bridwell, K. H. 2006. 'The SRS classification for adult spinal deformity: building on the King/Moe and Lenke classification systems'. *Spine*, 31: S119-125.
- Lowe, T., Lawellin, D., Smith, D., Price, C., Maher, T. dan Merola, A. 2002. 'Platelet calmodulin levels in adolescent idiopathic scoliosis: do the levels correlate with curve progression and severity?'. *Spine* (on-line), 27. <http://dx.doi.org/10.1097/00007632-200204010-00016>.
- Lucas, D. B., Bresler, B. dan Florence Hellman Ehrman Endowment Fund for Orthopedic Research. 1961. *Stability of the ligamentous spine*. San Francisco: Biomechanics Laboratory, University of California.
- Machida, M., Dubousset, J., Imamura, Y., Iwaya, T., Yamada, T. dan Kimura, J. 1995. 'Role of melatonin deficiency in the development of scoliosis in pinealectomised chickens'. *J Bone Joint Surg Br*, 77.
- Machida, M., Murai, I., Miyashita, Y., Dubousset, J., Yamada, T. dan Kimura, J. 1999. 'Pathogenesis of idiopathic scoliosis. Experimental study in rats'. *Spine* (on-line), 24. <http://dx.doi.org/10.1097/00007632-199910010-00004>.
- Nash, C. L. dan Moe, J. H. 1969. 'A study of vertebral rotation'. *The Journal of Bone and Joint Surgery. American Volume*, 51: 223–229.
- Nery, L. S., Halpern, R., Nery, P. C., Nehme, K. P. dan Tetelbom Stein, A. 2010. 'Prevalence of scoliosis among school students in a town in southern Brazil'. *Sao Paulo Medical Journal*, 128: 69–73.
- Ovadia, D. 2013. 'Classification of adolescent idiopathic scoliosis (AIS)'. *Journal of Children's Orthopaedics*, 7: 25–28.
- Ponseti, I. V. dan Friedman, B. 1950. 'Prognosis in idiopathic scoliosis'. *The Journal of Bone and Joint Surgery. American Volume*, 32A: 381–395.
- Raval, P. 1994. 'Qualitative and quantitative determination of mRNA'. *Journal of Pharmacological and Toxicological Methods*, 32: 125–127.
- Reames, D. L., Smith, J. S., Fu, K.-M. G., Polly, D. W., Ames, C. P., Berven, S. H., Perra, J. H., Glassman, S. D., McCarthy, R. E., Knapp, R. D., Heary, R., Shaffrey, C. I. dan Scoliosis Research Society Morbidity and Mortality Committee. 2011. 'Complications in the surgical treatment of 19,360 cases of pediatric scoliosis: a review of the Scoliosis Research Society Morbidity and Mortality database'. *Spine*, 36: 1484–1491.

- Schafer, K. dan Braun, T. 1999. 'Early specification of limb muscle precursor cells by the homeobox gene *Lbx1h*'. *Nat Genet*, 23: 213–216.
- Sharma, S., Gao, X., Londono, D., Devroy, S. E., Mauldin, K. N., Frankel, J. T., Brandon, J. M., Zhang, D., Li, Q.-Z., Dobbs, M. B., Gurnett, C. A., Grant, S. F. A., Hakonarson, H., Dormans, J. P., Herring, J. A., Gordon, D. dan Wise, C. A. 2011. 'Genome-wide association studies of adolescent idiopathic scoliosis suggest candidate susceptibility genes'. *Human Molecular Genetics*, 20: 1456–1466.
- Sieber, M. A., Storm, R., Martinez-de-la-Torre, M., Müller, T., Wende, H., Reuter, K., Vasyutina, E. dan Birchmeier, C. 2007. '*Lbx1* Acts as a Selector Gene in the Fate Determination of Somatosensory and Viscerosensory Relay Neurons in the Hindbrain'. *Journal of Neuroscience*, 27: 4902–4909.
- Solomon, L., Nayagam, S., Warwick, D. dan Apley, A. G. 2010. *Apley's system of orthopaedics and fractures*. London: Hodder Arnold.
- Solomon, L., Warwick, D., Nayagam, S. dan Solomon, L. 2014. *Apley and Solomon's concise system of orthopaedics and trauma*.
- Soucacos, P. N., Soucacos, P. K., Zacharis, K. C., Beris, A. E. dan Xenakis, T. A. 1997. 'School-screening for scoliosis. A prospective epidemiological study in northwestern and central Greece'. *The Journal of Bone and Joint Surgery. American Volume*, 79: 1498–1503.
- Sponseller, P. D., Flynn, J. M., Newton, P. O., Marks, M. C., Bastrom, T. P., Petcharaporn, M., McElroy, M. J., Lonner, B. S., Betz, R. R. dan Harms Study Group. 2012. 'The association of patient characteristics and spinal curve parameters with Lenke classification types'. *Spine*, 37: 1138–1141.
- Suh, S.-W., Modi, H. N., Yang, J.-H. dan Hong, J.-Y. 2011. 'Idiopathic scoliosis in Korean schoolchildren: a prospective screening study of over 1 million children'. *European Spine Journal*, 20: 1087–1094.
- Takahashi, Y., Kou, I., Takahashi, A., Johnson, T. A., Kono, K., Kawakami, N., Uno, K., Ito, M., Minami, S., Yanagida, H., Taneichi, H., Tsuji, T., Suzuki, T., Sudo, H., Kotani, T., Watanabe, K., Chiba, K., Hosono, N., Kamatani, N., Tsunoda, T., Toyama, Y., Kubo, M., Matsumoto, M. dan Ikegawa, S. 2011. 'A genome-wide association study identifies common variants near *LBX1* associated with adolescent idiopathic scoliosis'. *Nature Genetics*, 43: 1237–1240.

- Thillard, M. J. 1959. 'Vertebral column deformities following epiphysectomy in the chick'. *C R Hebd Seances Acad Sci*, 248.
- Wallingford, J. B., Fraser, S. E. dan Harland, R. M. 2002. 'Convergent Extension: The Molecular Control of Polarized Cell Movement during Embryonic Development'. *Developmental Cell*, 2: 695–706.
- Wang, W. J., Yeung, H. Y., Chu, W. C.-W., Tang, N. L.-S., Lee, K. M., Qiu, Y., Burwell, R. G. dan Cheng, J. C. Y. 2011. 'Top theories for the etiopathogenesis of adolescent idiopathic scoliosis'. *Journal of Pediatric Orthopedics*, 31: S14-27.
- Watanabe, S., Kondo, S., Hayasaka, M. dan Hanaoka, K. 2007. 'Functional analysis of homeodomain-containing transcription factor Lbx1 in satellite cells of mouse skeletal muscle'. *Journal of Cell Science*, 120: 4178–4187.
- Weinstein, S. L., Dolan, L. A., Cheng, J. C., Danielsson, A. dan Morcuende, J. A. 2008. 'Adolescent idiopathic scoliosis'. *Lancet* (on-line), 371. [http://dx.doi.org/10.1016/S0140-6736\(08\)60658-3](http://dx.doi.org/10.1016/S0140-6736(08)60658-3).
- Weinstein, S. L., Zavala, D. C. dan Ponseti, I. V. 1981. 'Idiopathic scoliosis: long-term follow-up and prognosis in untreated patients'. *The Journal of Bone & Joint Surgery*, 63: 702.
- Weiss, H.-R., Bess, S., Wong, M. S., Patel, V., Goodall, D. dan Burger, E. 2008. 'Adolescent idiopathic scoliosis – to operate or not? A debate article'. *Patient Safety in Surgery*, 2: 25.
- Weiss, H.-R., Karavidas, N., Moramarco, M. dan Moramarco, K. 2016. 'Long-Term Effects of Untreated Adolescent Idiopathic Scoliosis: A Review of the Literature'. *Asian Spine Journal*, 10: 1163–1169.
- Wong, H.-K., Hui, J. H. P., Rajan, U. dan Chia, H.-P. 2005. 'Idiopathic scoliosis in Singapore schoolchildren: a prevalence study 15 years into the screening program'. *Spine*, 30: 1188–1196.
- Yu, M., Smolen, G. A., Zhang, J., Wittner, B., Schott, B. J., Brachtel, E., Ramaswamy, S., Maheswaran, S. dan Haber, D. A. 2009. 'A developmentally regulated inducer of EMT, LBX1, contributes to breast cancer progression'. *Genes & Development*, 23: 1737–1742.
- Zhu, Z., Tang, N. L.-S., Xu, L., Qin, X., Mao, S., Song, Y., Liu, L., Li, F., Liu, P., Yi, L., Chang, J., Jiang, L., Ng, B. K.-W., Shi, B., Zhang, W., Qiao, J., Sun, X., Qiu, X., Wang, Z., Wang, F., Xie, D., Chen, L., Chen, Z., Jin, M., Han,

X., Hu, Z., Zhang, Z., Liu, Z., Zhu, F., Qian, B.-P., Yu, Y., Wang, B., Lee, K. M., Lee, W. Y. W., Lam, T. P., Qiu, Y. dan Cheng, J. C.-Y. 2015. 'Genome-wide association study identifies new susceptibility loci for adolescent idiopathic scoliosis in Chinese girls'. *Nature Communications*, 6: 8355.

Zhu, Z., Xu, L. dan Qiu, Y. 2015. 'Current progress in genetic research of adolescent idiopathic scoliosis'. *Annals of Translational Medicine*, 3: S19.