

DAFTAR PUSTAKA

- Al-Ani, I.M., Al-Khfaji I.N., Fakhridin M.B. Mangalo HH dan Al-Obaidi S. R. 2009. The Effect of lead exposure of mice during pregnancy on the morphology of epididymal and testicular spermatozoa of their offspring. *Int. Medical J.*, **Vol. 8(1)** : 11-16.
- Alomran, A.H., dan Shleamoon, M. N. 1988. Influence of chronic lead exposure on lymphocyte proliferative response and immunoglobulin levels in a storage, battery workers. *J Biol Sci Res.*, **Vol. 19** : 575-85
- Aolad, H. M. D., Minoru I., Win D., Shizu H. dan Yoshiharu M. 2000. Hydrocephalus in Mice Following X-irradiation at Early Gestational Stage: Possibly Due to Persistent Deceleration of Cell Proliferation. *J. Radiat. Res.*, **Vol. 41**: 213–226.
- ATSDR (Agency for Toxic Substances and Disease Registry's). 2017. National Priorities List. www.atsdr.cdc.gov/spl/. Diakses pada 5 November 2018.
- Avagliano, L., Cecilia P., Andrea R., Gaetano P. B. dan Valentina M.. 2016. *Histopathology of Neural Tube Defects*. SMGroup: Italy.
- Bear, M. F., Barry W. C. dan Michael A. P. 2007. Neuroscience: Exploring the Brain, third edition. Lippincott Williams & Wilkins: United States.
- Beckman, D. A. dan Brent, R. L. 1984. Mechanisms of Teratogenesis. *Ann. Rev. Pharmacol. Toxicol.*, **Vol. 24**:483-500.
- Bellinger, D. C. 2005. Teratogen Update: Lead and Pregnancy. *Birth Defects Res. Part A*, **Vol.73**:409–420
- Berlucchi, C. dan Marzi, C. A.. 2019. Neuropsychology of Consciousness: Some History and a Few New Trends. *Front. Psychol.*, **Vol. 10** (50): 1-8.
- Brandini, D. A., Miguel A. S. dan Ruberval A. L. 2011. Effects of Maternal Pb 2+ Poisoning during Pregnancy on the Development of the Jaw (Meckel's Cartilage) of Rat Fetus. *J. Appl. Sci. Environ. Manage.*, **Vol. 15** (1): 17 – 19.
- Buckingham, M., Meilhac S. dan Zaffran S. 2005. Building the mammalian heart from two sources of myocardial cells. *Nat. Rev. Genet* , **Vol. 6** : 26-35.

- Byers, S. L., Michael V. W., Sadie L. D., dan Robert A. T. 2012. Mouse Estrous Cycle Identification Tool and Images. *PLoS ONE.*, **Vol. 7** (4): 1-5.
- Cabrera, R. M., Richard H. F., Huiping Z., Gary M. S., dan Bogdan J. W. 2012. Transcriptional Analyses of Two Mouse Models of Spina Bifida. *Birth Defects Res., Part A : Clinical and Molecular Teratology.* 1-8.
- Chen, V. S., James P. M., Myra F. S., Julie F. F., Brad B., dan Susan A. E. 2017. Histology Atlas of the Developing Prenatal and Postnatal Mouse Central Nervous System, with Emphasis on Prenatal Days E7.5 to E18.5. *Toxicol. Pathol.*, **Vol. 45** (6): 705-744.
- Chibowska, K., Irena B., Anna F., Izabela G., Marta G., dan Dariusz C. 2016. Effect of Lead (Pb) on Inflammatory Processes in the Brain. *Int. J. Mol. Sci.*, **Vol. 17**: 2140.
- Clancy, B., Barbara L. F., Richard B. D., dan Kanwaljeet A. 2007. Extrapolating Brain Development from Experimental Species to Humans. *Neurotoxicol.*, **Vol. 28** (5).
- Clarkson, T.W. 1987. Metal Toxicity in the Central Nervous System. *Environmental Health Perspectives.* **Vol. 75**:59-64.
- Clay, M. R. dan Halloran, M. C. 2010. Control of neural crest cell behavior and migration: Insights from live imaging. *Cell Adh. Migr.*, **Vol. 4**, 586–94.
- Copp A.J. dan Harding, B.N. 1999. Neuronal Migration Disorders in Humans and in Mouse Models - an Overview. *Epilepsy Res.* **Vol. 36**(0): 133–141.
- Danielsson, B. R.G., Dencker L., dan Lindgren A. 1983. Transplacental Movement of Inorganic Lead in Early and Late Gestation in The Mouse. *Arch. Toxicol.*, **Vol. 54**: 97-107.
- Darmanto, W., Eko P., dan Ria H. 2004. Induksi 2-Methoxyethanol pada Masa Prenatal sebagai Penyebab Kelainan Otak pada Mencit. *Berk. Penel. Hayati.*, **Vol. 10** : 1-5.
- Darmanto, W. 2005. Abnormal Struktur Histologis Korteks Cerebellar Tikus dengan Normal Foliasi Akibat Iradiasi Sinar X Masa Postnatal. *Berk. Penel. Hayati*, **Vol. 11** : 13–18.
- Darmanto, W. 2016. *Bahan Ajar Mata Kuliah Teratologi: Pengamatan Kelainan Kepala dan Rangka.* Departemen Biologi, Universitas Airlangga.
- Darmono. 1995. Logam dalam Sisitem Biologi Makhluk Hidup. Universitas Indonesia Press: Jakarta.

- Davy, B. E. dan Robinson, M. L. 2003. Congenital Hydrocephalus in hy3 Mice is caused by A Frameshift Mutation in Hydin, A Large Novel Gene. *Hum. Mol. Genet.*, **Vol. 12** (10) : 1163–1170.
- Dean, J. A. 1999. Lange's Handbook of Chemistry (Fifteenth Edition).McGraw-Hill, Inc: New York.
- Dekaban, A. S. 1969. Effects of X-Radiation on Mouse Fetus during Gestation: Emphasis on Distribution of Cerebral Lesions, Part II. *J Nucl Med.*, **Vol. 10**: 68-77.
- Dehay, C. dan Kennedy, D.H. 2007. Review: Cell-cycle Control and Cortical Development. *Nature Review Neurosci.*, **Vol. 8** : 438 - 450.
- Deloach, D. J. 2015. Methods of Pregnancy Confirmation for Timed Matings. *Laboratory Animal Science Professional*, 45-46.
- Dutta, S. 2015. Human Teratogens and Their Effects: A Critical Evaluation. *Int. J. Inf. Res. Rev.*, **Vol. 2**(3):525-536.
- Eroschenko,V. P. 2008. *Di Fiore's Atlas of Histology with Functional Correlations*. — 11th ed. Lippincott Williams & Wilkins: Baltimore.
- Fadli, A. 2019. *Retensi Kandungan Plumbum Pada Berbagai Organ Induk dan Fetus Mencit (Mus musculus) Akibat Induksi Plumbum Asetat Pada Umur Kehamilan 8, 9, 10, 11 Hari*. Skripsi. Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.
- Festing, M. F. W. 2006. Design and Statistical Methods in Studies Using Animal Models of Development. *ILAR J.*, **Vol. 47**(1): 5-14.
- Flora, G., Deepesh G., dan Archana T. 2012. Review Article. Toxicity of Lead: A Review with Recent Updates. *Interdisciplinary Toxicol.* **Vol. 5** (2): 47–58.
- García-Cabezas, M.A., Yohan J. J., Helen B. dan Basilis Z. 2016. Distinction of Neurons, Glia and Endothelial Cells in the Cerebral Cortex: An Algorithm Based on Cytological Features. *Front. Neuroanat.* **Vol. 10**:107.
- Glastonbury, C. M., Anne G. O. dan Karen L. S. 2011. Masses and Malformation of the Third Ventricle: Normal Anatomic Relationships and Differential Diagnosis. *Radio Graphig*, **Vol 31**, No 7.
- Gerber, G. B., A. Leonard dan P. Jacquet. 1980. Toxicity, Mutagenicity, And Teratogenicity of Lead. *Mutation Research*, **Vol. 76**: 115-141.

- Gilbert, S. F. 2000. *Developmental Biology, 6th edition.* Sinauer Associates: Sunderland.
- Goldstein, G. W. 1984. Brain Cappilaries: A Target for Inorganic Lead Poisoning. *Neurotoxicol.* **Vol. 5**(3): 167-75.
- Goldstein, G. W. 1990. Lead Poisoning and Brain Cell Function. *Environmental Health Perspectives*, **Vol. 89**: 91-94.
- Goyer, R. A. 1990. Environmental Transplacental Transport of Lead. *Health Perspectives*, **Vol. 89**: 101-105.
- Greene, N. D. E. dan Copp, A. J.. 2005. Mouse Models of Neural Tube Defects: Investigating Preventive Mechanisms. *American J. of Med.Genet. Part C* 135: 31–41.
- Guerra, M., Juan L. B. dan Esteban M. R. 2017. Blood–brain barrier and foetal-onset hydrocephalus, with a view on potential novel treatments beyond managing CSF flow. *Fluids Barriers CNS.*, **Vol. 14**: 1-15.
- Hawkins, B. T. dan Davis, T. P. 2005. The Blood-Brain Barrier: Neurovascular Unit in Health and Disease. *Phamacol. Rev.*, **Vol. 57**, No. 2.
- Haround, H. S. W. 2017. Teratogenicity and Teratogenic Factors. *MOJ Anat & Physiol.*, **Vol. 3**(1): 1-5.
- Ihwah, A., P Deoranto, S Wijana dan I A Dewi. 2018. Comparative study between Federer and Gomez Method for Number of Replication in Complete Randomized Design using Simulation: Study of Areca Palm (*Areca catechu*) as Organic Waste for Producing Handicraft Paper. *Int. Conf. Green Agro-industry and Bioeconomy.*, **Vol. 131**: 1-6.
- Irnidayanti, Y. 2012. *Perubahan Protei Vimentin dan GFAP pada Kelainan Otak Fetus Mencit Mus musculus akibat Induksi 2-Methoxyethanol: Potensi Penyebab Kelainan Otak.* Disertasi. Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.
- Irnidayanti, Y. dan Darmanto, Win. 2013. Expression of Vimentin and GFAP Protein of Cerebral Cortex and Its Impact on Corticogenesis Disorder as A Result of 2-Methoxyethanol. *Int. J. Morphol.*, **Vol. 31**(3):
- Jabeen, R., M. Tahir, dan S. Waqas. 2010. Teratogenic Effects of Lead Acetate on Kidney. *J Ayub. Med. Coll. Abbottabad.*, (1) : 22.

- Jamkhande, P. G., Kalyani D. C., dan Prakash G. C. 2014. Teratogenicity: a mechanism based short review on common teratogenic agents. *Asian Pacific Journal of Tropical Disease. Asian Pac. J. Trop. Dis.*, **Vol. 4**(6): 421-432.
- Jaregui-Huerta, F., Yaveth R. D., Rocio G. C., Joaquin G. C., Oscar G. P., dan Sonia L. 2010. Responses of Glial Cells to Stress and Glucocorticoids. *Curr. Immunol. Rev.*, **Vol. 6**(3): 195-204.
- Juriloff, D.M. dan Harris, M. J. 1998. Animal Models of Neural Tube Defects. *Ment. Retard. Dev. Disabil. Res. Rev.*, **Vol. 4**: 254–263.
- Kalia, K., dan Flora, S. S. J. F. 2005. Strategies for Safe and Effective Therapeutic Measures for Chronic Arsenic and Lead Poisoning. *J. Occup. Health*, **Vol. 47**: 1–21.
- Kanno, T. Y. N., Lucimara A. S., Natália Aparecida P., dan Maria J. S. S. 2009. Toxic Effects of Different Doses of Cyclophosphamide on the Reproductive Parameters of Male Mice. *Braz. J. Pharm. Sciences.*, **Vol. 45**: 313-319.
- Kobayashi, M. dan Yamamoto, M. 2005. Molecular Mechanisms Activating the Nrf2-Keap1 Pathway of Antioxidant Gene Regulation. *Antioxid. Redox. Signal.* **Vol. 7**: 385–394.
- Kolb, R. M., Arif M., dan Robbin G. 2013. Brain Plasticity in the Developing Brain, Chapter 2. *Prog. Brain Res.*, **Vol. 207**: 35-64.
- Li, C., Qin W., Yisheng J., Qing Y., Dan X., Fei G., Jesse W. X., Ruoke W., dan Xingliang Z. 2018. Disruption of Glial Cell Development by Zika Virus Contributes to Severe Microcephalic Newborn Mice. *Cell Discov.*, **Vol. 4** (43) : 1-12.
- Lounasmaa, O. V., Matti H., Riitta H., dan Riitta S. 1996. Information Processing in the Human Brain: Magnetoencephalographic Approach. *Proc. Natl. Acad. Sci.* **Vol. 93**: 8809-8815.
- Mangels, R., B Young, S Keeble, R Ardekani, C Meslin, Z Ferreira, NL Clark, JM Good dan MD Dean. 2015. Genetic and Phenotypic Influences on Copulatory Plug Survival in Mice. *Hered.*, 1–7.
- Metryka, E., Karina C., Izabela G., Anna F., Patrycja K., Katarzyna B., Dariusz C. dan Irena B. 2018. Review : Lead (Pb) Exposure Enhances Expression of Factors Associated with Inflammation. *Int. J. Mol. Sci.*, **Vol. 19** : 1813.
- Mort, R.L., Hay L. dan Jackson I.J. 2010. Ex vivo live imaging of melanoblast migration in embryonic mouse skin. *Pigment Cell Melanoma Res* , **Vol. 23**: 299-301.

- Nebendahl, K. 2000. *Routes of Administration*. University of Göttingen, Göttingen, Academic Press: Germany.
- Needleman, H. L. 1992. *Human Lead Exposure*. CRS Press: USA.
- Omar, S. M. M. 2009. Effect of Aspartame on the Frontal Cortex of Adult Male Albino Rats. A Light and Electron Microscopic Study. *Egypt. J. Histol.* **Vol. 32**(2): 346 – 357.
- Pakkenberg, B. dan Gundersen, H. J. 1997. Neocortical Neuron Number in Humans: Effect of Sex and Age. *J. Comparative Neurol.*, **Vol. 384**: 312–320.
- Palar, 2004. *Pencemaran dan Toksikologi Logam Berat*. Rineka Cipta: Jakarta.
- Patnaik, P. 2003. *Handbook of Inorganic Chemicals*. McGraw-Hill Companies, Inc: United States.
- Padmanabhan, R. 1984. Experimental Induction of Cranioschisis Aperta and Exencephaly after Neural Tube Closure. *J. Neurological Sci.*, **Vol. 66**: 235–243.
- Pauwels, L., Sima C., dan Stephan P. S.. 2018. Article: Aging and brain Plasticity. *Aging.*, **Vol. 10**: 1-2.
- Persidsky, Y., Servio H. R., James H. dan Georgette D. K. 2006. Blood-brain Barrier: Structural Components and Function Under Physiologic and Pathologic Conditions. *J. Neuroimmune Pharmacol.*, **Vol. 1**: 223–236.
- Peskett, E., Samin K., William B., Janhvi J., Ming L., Priyanka P., Jonathan A. B. dan Erwin P. 2017. Analysis of the Fgfr2C342Y Mouse Model Shows Condensation Defects due to Misregulation of Sox9 Expression in Prechondrocytic Mesenchyme. *Biology Open*, **Vol. 6**: 223-231.
- Pliz, D., Neil S., dan Jeffrey A. G. 2002. Neuronal Migration, Cerebral Cortical Development, and Cerebral Cortical Anomalies. *J. Neuropathol. Experiment. Neurol.*, **Vol. 61**(1):1-11.
- Prihiyantoro, E., Win D., Samekto W., Mammed S., dan Sri K. S. 2008. Gangguan Pembentukan Atap Bumbung Neural Embrio Mencit akibat Induksi 2-Me yang Bertepatan dengan Masa Neurulasi Primer. *Berk. Penel. Hayati.*, **Vol. 13**:163–172.
- Rang, H.P., Dale MM, Ritter JM, Fowler RJ. 2007. *Rang and dale's pharmacology 6th ed.* Edinburgh, UK: Churchill Livingstone dalam

- Jamkhande, P. G., Kalyani D. C., dan Prakash G. C. 2014. Teratogenicity: a mechanism based short review on common teratogenic agents. *Asian Pacific Journal of Tropical Disease. Asian Pac. J. Trop. Dis.*, **Vol. 4**(6): 421-432)
- Ratnani, R. D. 2008. Teknik Pengendalian Pencemaran Udara yang Diakibatkan oleh Partikel. *Momentum.*, **Vol. 4** (2) : 27 – 32.
- Reece, J. B., Lisa A. U., Michael L. C., Steven A. W., Peter V. M., dan Robert B. J. 2011. *Campbell Biology 9th Edition*. Pearson Benjamin Cummings: San Fransisco.
- Rice, D. dan Stan B. Jr. 2000. Critical Periods of vulnerability for the Developing Nervous System: Evidence from Humans and Animal Models. *Environ. Health Perspect.*, **Vol. 108**: 511-533.
- Saheb, H. S., Muralidhar P. S. , S.D D., S.T Thomas, dan Haseena S. 2012. Anencephaly. *J. Pharm. Sci. Res.* **Vol. 4**(3):1755-1757.
- Schambra, U. 2008. Prenatal Mouse Brain Atlas. Springer Science+Business Media, LLC: USA.
- Schoenwolf, G. C. dan Powers, M. L. 1987. Shaping of the Chick Neuroepithelium During Primary and Secondary Neurulation: Role of Cell Elongation. *Anat. Rec.*, **Vol. 218**: 182-195.
- Santana, E. F. M., Edward A. J., Gabriele T., Fabricio D.C., dan Simon M. 2018. Acrania-exencephaly-anencephaly sequence phenotypic characterization using two- and three-dimensional ultrasound between 11 and 13 weeks and 6 days of gestation. *J. Ultrason.* **Vol.18**: 240–246.
- Sarah, M., Emita S. dan Salomo H. *Unpublished. Kelainan Perkembangan Kraniofacial Fetus Mencit (Mus musculus L.) Strain DDW setelah Pemberian Ekstrak Nheksan Buah Andaliman (Zanthoxylum acanthopodium DC.).*
- Seller, M. J. 1983. The Cause of Neural Tube Defects: Some Experiments and A Hypothesis *J. Med.Genetics.*, **Vol. 20** : 164-168.
- Shafique, S. 2017. Pregnancy with Zika Virus – Psychosocial Impacts and High Risk for Post-Traumatic Stress Disorder (PTSD). *Res. J. Congenit. Dis.*, **Vol. 1**(1):1-2.
- Shalan, M. G., Mostafa M. S., Hassouna M. M., Nabi S. E., dan Rafie A. 2005. Amelioration of Lead Toxicity on Rat Liver with Vitamin C and Silymarin Supplements. *Toxicol.* 206:1–15. Dalam Jabeen, R., M. Tahir, dan S.

- Waqas. 2010. Teratogenic Effects of Lead Acetate on Kidney. *J Ayub Med Coll Abbottabad.*, **Vol. 22**(1).
- Sharma, R.P. dan Street, J. C. 1980. Public Health Aspects of Toxic Heavy Metals in Animal Feeds. *Am. J. Vet. Med. Assoc.*, **Vol. 177** dalam Al-Ani, I. M., Al-Khfaji I. N., Fakhrildin M. B., Mangalo H. H. dan Al-Obaidi S. R. 2009. The Effect of lead exposure of mice during pregnancy on the morphology of epididymal and testicular spermatozoa of their offspring. *Int. Medical J.*, **Vol. 8**(1) : 11-16.
- Skoczyńska, A., Poreba R., Sieradzki A., Andrzejak R., dan Sieradzka U. 2002. The Impac of Lead and Cadmium on the Immune System. *Medycyna Pracy.*, **Vol. 53**(3):259-264.
- Snell, O. D. 1941. *Biology of The Laboratory Mouse*. New York: Dover Publications. dalam Dekaban, Anatole S. 1969. Effects of X-Radiation on Mouse Fetus during Gestation: Emphasis on Distribution of Cerebral Lesions, Part II. *J Nucl Med.*, **Vol. 10**:68-77.
- Sodani, I. J. 2012. Histopathological Changes of the Mice Placenta Exposed to Lead Acetate. *Iraqi. J. Med. Sci.*, **Vol. 10**(4):339-347.
- Stiles, J. 2000. Neural Plasticity and Cognitive Development. *Dev. Neuropsychol.*, **Vol. 18**(2): 237–272.
- Stiles, J. dan Jernigan, T. L. 2010. The Basics of Brain Development. *Neuropsychol. Rev.*, **Vol. 20** : 327–348.
- Sun, X., Sentaro T., Yoshihisa K., Hiroshi S., Chun C., Yoshihiro F. danMinoru I. 2002. Types and Three-dimensional Distribution of Neuronal Ectopias in the Brain of Mice Prenatally Subjected to X-irradiation. *J. Radiat. Res.*, **Vol. 43**: 89–98.
- Sweger, E. J., Kristen B. C., Kimberly S., Bruce R. C., dan Ken D. M. 2007. Development of Hydrocephalus in Mice Expressing the Gi -Coupled GPCR Ro1 RASSL Receptor in Astrocytes. *J. Neurosci.*, **Vol. 27**(9): 2309 –2317.
- Ting, S. B., Tomasz W., Alana A.,Mark H., Anne K. V., Tim T.,Vishwas P., John M. C. dan Stephen M. J. 2003. Inositol- and folate-resistant neural tube defects in mice lacking the epithelial-specific factor Grhl-3. *Nat. Med.*, **Vol. 9**(12): 1513-1519.
- Tully, H. M dan Dobyns, W. B. 2014. Infantile Hydrocephalus: A Review of Epidemiology, Classification and Causes. *Eur J Med Genet.* **Vol. 57**(8): 359–368.

- Vogel, P., R. W. Read, G. M. Hansen, B. J. Payne, D. Small, A. T. Sands, and B. P. Zambrowicz. 2012. Congenital Hydrocephalus in Genetically Engineered Mice. *Vet. Pathol.*, **Vol. 49**(1): 166-181
- Wolburg, H., Susan N., Andreas M., Karen W., Petra F. 2009. Brain Endothelial Cells and the Glio-vascular Complex. *Cell Tissue Res.*, 335:75–96.
- Woods, C.G., Bond J., dan Enard W. 2005. Autosomal recessive primary microcephaly (MCPH): a review of clinical, molecular, and evolutionary findings. *Am J Hum Genet.* **Vol. 76**: 717-728. dalam Shafique, S. 2018. Zika-Induced Microcephaly and Neurodevelopment. *Res. J. Congenit. Disease.*, **Vol. 1** : 1:3.
- World Health Organization (WHO). 2010. *Childhood Lead Poisoning*. WHO Document Production Services: Switzerland.
- Xiao, M., Qiang L., Hua F., Le Z., dan Yujie C. 2017. Review Article: Neural Vascular Mechanism for the Cerebral Blood Flow Autoregulation after Hemorrhagic Stroke. *Hindawi. Neural. Plasticity.*, **Vol. 2017**, Article ID 5819514.
- Xu, W., Tomasa B. dan Nancy C. A. 2013. Iron and Copper in Mitochondrial Diseases. *Cell. Metab.*, **Vol. 17**: 319-328.
- Yusuf, M. 2014. Metode Penelitian : Kuantitatif, Kualitatif dan Penelitian Gabungan, Edisi Pertama. Kencana: Jakarta.
- Zhang, R., Vincent L. W., Aixin H., dan Ge M. 2015. Source of lead pollution, its influence on public health and the countermeasures. *Int. J. of Health, Animal Sci. Food Safety* 2. **Vol. 2**(1): 18-31.