DAFTAR PUSTAKA

Abdi, S., Salehnia, M. and Hosseinkhani, S. 2013. Steroid production and follicular development of neonatal mouse ovary during *in vitro* culture. *Internl. J. Fertil and Steril*. 7 (3): 181-186.

Adams, E.G. and Hertigs, A.T. 1964. Studies on the guinea pig oocytes. I. Electron microscopic observations on the development of cytoplasmatic organelles in oocytes of *primordial* and primary follicles. *J. Cell Biol.* 21. 397.

Adhikary, P., Banerji, J., Chowdhury, D., Das, A.K., Deb, C.C., and Mukherjee, S.R. 1989. Antifertility effect of *Piper bettle* Linn. Extract on ovary and testis of albino rats. Indian. *J. Exp. Biol.* 27: 868-870.

Adimunca, C. 1996. Kemungkinan pemanfaatn ekstrak buah pare sebagai bahan kontrasepsi pria. *Cermin Dunia Kedokteran*. 112: 12-14.

Advis, J.P., Andrews, W.W. and Ojeda, S.R. 1979. Changes in ovarian steroidal and prostaglandin E responiveness to gonadotropins during the onset of puberty in the female rat. *Endocrinol*. 104: 653-658.

Alban, L., Dahl, P.J., and Hansen, A.K. 2001. The welfare impact of increased gavaging doses in rats. *Anim. Welfare*. 10: 303-314.

Alves, B.G., Alves, K.A., Araujo, V.R., Beletti, M.E., Gambarini, M.L. and Jacomini, J.O. 2012. Quantitative and morphological study of *preantral* follicles from prepubertal gilts. *Act. Scient. Vet*. 40 (4); 1079.

Andrews, W.W. and Ojeda, S.R. 1981. A detailed analysis of the serum LH secretory profiles of conscious free-moving female rats during the time of puberty. *Endocrinol.* 109: 2032-2039.

Anggara A.W. 2009. *Ragam pakan alami tikus sawah (Rattus argentiventer) pada agroekosistem sawah irigasi*. Dalam : Suprihatno, B., Daradjat, A.A., Satoto, Effendi, B.S., dan Sudir (eds). Prosiding Seminar Nasional Padi 2008 (Buku 1). *Inovasi Teknologi Padi Mengantisipasi Perubahan Iklim Global Mendukung Ketahanan Pangan*. Sukamandi: 23-24 Juli 2008. Pp: 489-500.

Anonymus. 1982. Some plastics used in elastomers. *IARC Monogr Eval Carcinog Risks Chem Hum*. 39: 181-192.

Anonymus. 1989. *Toxicology and carcinogenesis studies of 4-Vinyl-1-Cyclohexene Diepoxide (CAS No. 106-87-6) in F344/N rats and*

B6C3F$_1$ mice (Dermal studies). Technical reports Series No. 362. Research Triangle Park, NC. National Toxicological Program. P. 251.

Anonymus. 1994. *4-Vinylcyclohene diepoxide*. In Some industrial Chemicals. IARC Monographs on the evaluation of carcinogenic risk of chemicals to human. Vol. 60. Lyon. France: International Agency for Research on Cancer. Pp. 361-372.

Anonymus. 2004. Fertility assessment and treatment for people with fertility problems. London, RCOG Press. Pp. 463-483.

Anonymus, 2014. Statistik Pertanian. Pusat Data dan Sistem Informasi Pertanian. Kementerian Pertanian. Jakarta. Pp. 25-30.

Anonymus, 2015a. Statistik Iklim, Organisme Pengganggu Tanaman dan Dampak Perubahan Iklim. 2012-2015. Pusat Data dan Sitem Informasi Pertanian. Sekretariat Jenderal Kementerian Pertanian. Jakarta. Pp. 56-69; 85-87.

Anonymus, 2015b. Toxicology and exposure guidelines. University of Nebraska Lincoln. UNL environmental Health and Safety. (http://ehs.unl.edu/). Diakses tanggal 10 Desember 2015.

Anonymus, 2016. https://www.repropedia.org/sites/repropedia/files/*primordial*-follicle-final.jpg. Diakses tanggal 10 Januari 2016.

Antolin, M., Gober, P., Luce, B., Biggins, D., Van Pelt, W., Seery, D., Lockhart, M. and Ball, M. 2002. The influence of sylvatic plague on North American wildlife at the landscape level, with special emphasis on black-footed ferret and prairie dog conservation. *Trans. Of the North American Wildlife and Nature Resources Conf.* 67: 105-127.

Aplin, K.P., Brown, P.R., Jacob, J., Krebs, C.J., and Singleton, G.R. 2003. *Field methods for rodent studies in Asia and the Indo-Pacific*. ACIAR Monograph Series. No. 100. BPA Print Group, Melbourne. Australia. Pp.61-71; 152-156.

Astwood, E.B. 1939. Changes in weight and water content of the uterus of the normal adult rat. *Am. J. Physiol*. 126: 162-170.

Azhar, F. 2013. Uji antifertilitas ekstrak methanol kulit buah manggis pada tikus jantan secara *in vivo*. Skripsi Program Studi Ilmu Farmasi. Fakultas Kedokteran dan Ilmu Kesehatan. UIN Syarief Hidayatullah. Jakarta.

Baker, T.G. and Neal, P. 1972. *Gonadotrophin-induced maturation of mouse Graafian follicles in organ culture*. In: Biggars, J.D., Schuetz, A.W. (eds.). *Oogenesis*. Baltimore. University Park Press. Pp. 377-396.

Balser, D. 1964. Antifertility agents in vertebrate pest control. Proceedings of the 2nd vertebrate conference. University of Nebraska, Lincoln. P. 133-137.

Bancroft, J.D. and Cook, H.C. 1984. *Manual of Histological Techniques*. Churchill Livingstone, New York. Pp. 18-21.

Banerjee. S., SK. Bandyopadhyay., PK. Mukherjee., A. Mukherjee and S. Sikdar. 1999. Futher studies on the anti-implammatory activities of *Ricinus communis* in albino rat. *Ind. J. Pharmacol*. 23 (3): 149-152.

Barnet, S.A. 1976. *The Rat. A study in behaviour*. Australian National University Press. Canberra. PP. 52, 138.

Becedas, L., Romert, L., Toft, E, Jenssen, D., DePierre, J.W., and Ahlberg – Bengtsson, M. 1993. Metabolism of polycyclic aromatic hydrocarbons to mutagenic species by rat and porcine ovarian *granulosa* cells: detection by cocultivation with V79 Chinese hamster cells. *Reprod. Toxicol*. 7:219-224.

Beetham, J.K., Grant, D., and Arand, M. 1995. Gene evolution of epoxide hydrolases and recommended nomenclature. *DNA Cell Biology*. 14:61-71.

Bengtsson, M., Montelius, J., Mankowitz, L. and Rydstrom, J. 1983. Metabolism of polycyclic aromatic hydrocarbons in the rat ovary. *Biochem. Pharmacol*. 32:129-136.

Bengtsson, M. and Rydstrom, J. 1983. Regulation of carcinogen metabolism in the rat ovary by the estrous cycle and gonadotrophin. *Science.* 219: 1437-1438.

Bengtsson, M., Reinholt, F.P., and Rydstrom, J. 1992. Cellular localization and hormonal regulation of 7,12-dimethylbenz(a)anthracene mono-oxygenase activity in the rat ovary. *Toxicol.* 71: 203-222.

Berthois, Y., Katzenellenbogen, J. A., and Katzenellenbogen, B. S. 1986. Phenol red in tissue culture media is a weak estrogen: Implications concerning the study of estrogen-responive cells in culture. *Proceedings of the National Academy of Sciences of the United States of America.* 83 (8): 2496–2500.

Bhardwaj, J.K. and Saraf, P. 2014. Influence of toxic chemicals on female reproduction: a review. *Cell. Biol*.: *Res. Ther*. 3 (1): 1-10.

Bhatnagar, U. 1995. Postcoital contraceptive effects of an alcoholic extract of the *Daucus carota* Linn seed in rats. *Clin. Drug. Invest.* 9:30-36.

Bhattacharya, P. and Keating, A.F. 2012. Impact of environmental exposures on ovarian function and role of *xenobiotic* metabolism during ovotoxicity. Toxicol. Appl. Pharmacol. 261 (3): 227-235.

Bhattacharya, P., Sen, N., Hoyer, P.B. and Keating, A.F. 2012. Ovarian expressed microsomal epoxide hydrolase: role in detoxification of 4-vinylcyclohexene diepoxide and regulation by phosphatidylinositol-3 kinase signaling. *Toxicol. Appl. Pharmacol*. 258 (1): 118-123.

Blandeau, R., Warrick, E. and Runery, R.E. 1965. *In vitro* cultivation of fetal mouse ovaries. *Fertil. Steril*. 16: 705-715.

Boling, J.L., Blandau, R.J., Soderwall. A.L., and Young, W.C. 1941. Growth of the Graafian follicle and the time of ovulation in the albino rat. *Anat. Rec*. 79: 313.

Borg, A., Tandon, A.K., and Sigurdsson, H. 1990. HER-2/neu amplification predicts poor survival in node-positive breast cancer. *Cancer Res*. 50: 4332-4337.

Borman, S.M., VanDePol, B.J., Kao, S., Thompson, K.E., Sipes, I.G., and Hoyer, P.B. 1999. A single dose of the ovotoxicant 4-Vinyl Cyclohexene Diepoxide is protective in rat primary ovarian follicles. *Toxicol. Appl. Pharmacol*. 158:244-252.

Borman, S.M., Christian, P.J., Sipes, I.G. and Hoyer, P.B. 2000. Ovotoxicity in female fischer rats and B6 mice induced by low-dose exposure to three polycyclic aromatic hydrocarbons: comparison through calculation of an ovotoxic index. *Toxicol. And Appl. Pharmacol.* 167: 191-198.

Borovskaya, T.G., Goldberg, V.E., Fomina, T.I., Pakhomova, A.V., Kseneva, S.I., Poluektova, M.E. and Goldberg, E.D. 2004. Mopholoogical and functional state of rat ovaries in early and late periods after administration of platinum cytostatics. *Bulletin of experimental biology and medicine.* 137: 331-335.

Brady, A.G. 2000. Research techniques for the squirrel monkey (*Saimiri spp.*). *ILAR. J*. 41: 10-18.

Brower, P.T. and Schultz, R.M. 1982. Intercellular communication between *granulosa* cells and mouse oocytes: existence and possible nutritional role during oocyte growth. *Dev. Biol*. 90: 144-153.

Brown, A.P., Dinger, N. and Levine, B.S. 2000. Stress produced by gavage administration in the rat. *Contemp. Top. Lab. Anim. Sci*. 39: 17-21.

Buccione, R., Schroeder, A.S. and Eppig, J.J. 1990. Interactions between somatic cells and germ cells throughout mammalian oogenesis. *Biol. Reprod*. 43: 543-547.

Buckle, A.P. 1999. *Rodenticides – their role in rodent pest management in tropical agriculture.* In: Singleton, G.R., Hinds, L.A., Leirs, H., and Zhang, Z. (Eds). *Ecologically based management of rodent pests*. ACIAR, Canberra, pp. 163-177.

Bullard, R.W. and Shumake, S.A. 1977. Food-base flavor additive improves bait acceptance by ricefield rats. *J. Wildl. Managnt*. 41:290-297.

Bullough, W.S. 1942. Mitotic activity in the adult mouse ovary. *J. Endocr*. 44: 150.

Burd, A.M. 2014. *In vivo* and *in vitro* studies of 4-VCD inwild caught female brushtail possums (*Trichosaurus vulpecula*) and Norway rats (*Rattus norvegicus*) and its potential as a fertility control agent. Digital thesis. Doctor of Philosophy. Lincoln University. Christchurch. New Zealand.

Byers, S.L., Wiles, M.V., Dunn, S.L. and Taft, R.A. 2012. Mouse estrous cycle identification tool and images. *Plos One.* 7 (4): 1-5.

Cagnacci, F., Massei, G., Gowan, D.P., Walker, N. and Delahay, R.J. 2007. Effects of bait type and deployment strategy on uptake by free-living badgers. *Wildl.Res*. 34:454-460.

Caldwell, J., Gardne, I. and Swales, N. 1995. An introduction to drug disposition: the basic principles of absorption, distribution, metabolism, and excretion. *Toxicol. Pathol*. 23 (2): 102-114.

Caligioni, C. 2009. Assessing reproductive status/stages in mcie. *Curr. Protoc. Neuorsci*. 41: 2-11.

Cannady, E.A., Dyer, C.A., Christian, P.J., Sipes, G.I., and Hoyer, P.B. 2002. Expression and activity of microsomal epoxide hydrolase in follicles isolated from mouse ovaries. *Toxicol. Sci*. 68:24-31.

Cannady, E.A., Dyer, C.A., Christian, P.J., Sipes, I.G., and Hoyer, P.B. 2003. Expression and activity of cytochrome P450 2E1, 2A, and 2B in the mouse ovary: The effect of 4-vinylcyclohexene and its diepoxide metabolite. *Toxicol. Sci*. 73:423-430.

Cecconi, S., Barboni, B., Coccia, M. and Mattioli, M. 1999. *In vitro* development of sheep *preantral* follicles. *Biol. Reprod*. 60 (3): 594-601.

Chamber, L.K., Singleton, G.R. and Hinds, L. 1999. Fertility control of wild mouse populations: the effects of hormonal competence and an imposed level of sterility. *Wild. Res.* 26: 579-591.

Champlin, A.K., Dorr, D.L. and Gates, A.H. 1973. Determining the stage of the estrous cycle in the mouse by appearance of the vagina. *Biol. Reprod*. 8: 491-494.

Channing, C.P. and Tsafriri, A. 1977. Mechanism of action of luteinizing hormone and follicle-stimulating hormone on the ovary *in vitro*. *Metabolism*. 26: 413-468.

Charleston, J.S., Hansen, K.R., Thyer, A.C., Cahrleston, L.B., Gougeon, A., Siebert, J.R., Soules, M.R., and Klein, N.A. 2007. Estimating human ovarian non-growing follicle number: the application of modern stereology techniques to an old problem. *Hum. Reprod*. 22 (8): 2103-2110.

Charlton, H. 2008. Hypothalamic control of anterior pituitary function: a history. *J. neuroendocrinol*. 20: 641-646.

Chasseaud, L.F. 1979. The role of glutathione and glutathione S-transferases in the metabolism of chemical carcinogens and other electrophilic agents. *Adv. Cancer Res*. 29: 175-274.

Chhabra, R.S., Huff, J., Haseman, J.K. and Hetjmancik, M. 1990. Dermal toxicity and carcinogenicity of 4-Vinyl-1-Cyclohexene Diepoxide in Fischer Rats and B6C3F_1 mice. 1990. *Fund. & Appl. Toxicol.* 14 (4): 752-763.

Chinelli, P., Rettich, A., Seifert, B., Burki, K., and Arras, M. 2007. Comparative analysis and physiological impact to different tissue biopsy methodologies used for the genotyping of laboratory mice. *Lab. Anim*. 41: 174-184.

Chinoy, N.J., Dilip, T., and Harsha, J. 1995. Effect of *Carica papaya* seed extract on female rat ovaries and uteri. *Phytother. Res*. 9:169-175.

Chinoy, N.J., Joshi, H., and Ghosh, S. 1997. Antifertility investigations of alcoholic papaya seed extract in female rats. *J. Med. Arom. Plant. Sci*. 19:422-426.

Chwalisz, K., Stockemann, K., Fritzemeier, K. and Fuhrmann, U. 1998. Modulation of oestrogenic effects by progesterone antagonists in the rat uterus. *Hum. Reprod*. 4 (5): 570-583.

Colby, H.D., Huang, Y., Jiang, Q. and Voigt, G.M. 1996. *Toxicology of the adrenal cortex: role of metabolic activation.* In: Thomas, J.A. & Colby, H.D. (Eds.) *Endocrine Toxicology*. 2nd ed. Raven Press. New York. Pp. 81-114.

Colby, H.D. and Longhurst, P.A. 1992. *Toxicology of the gland*. In: Atterwill, C.A. & Flack, J.D. (Eds.). *Endocrine Toxicology*. Cambridge University Press. Cambridge, UK. Pp. 243-281.

Colby, H.D. and Rumbaugh, R.C. 1980. *Adrenal drug metabolism*. In: Gram, T.E. (Eds.). *Extrahepatic metabolism of drugs and other foreign compounds.* Spectrum Publications, New York. Pp. 239-266.

Cortvrindt, R. and Smitz, J. 1998. Early *preantral* mouse follicle *in vitro* maturation: oocyte growth, meiotic maturation and *granulosa*-cell proliferation. *Theriogenol*. 49 (4): 845-859.

Cortvrindt, R., Smitz, J. and Van Steirteghem, A.C. 1996. *In vitro* maturation, fertilization and embryo development of immature oocytes from early *preantral* follicles from prepubertal mice in a simplified culture system. *Hum. Reprod*. 11: 2656-2666.

Cortvrindt, R. and Smitz, J. 2002. Follicle culture in reproductive toxicology: a tool for *in vivo* testing of ovarian function? *Hum. Reprod*. Update. 8 (3): 243-254.

Cross, M., Zheng, T., Duckworth, J. and Cowan, P. 2011. Could recombinant technology facilitate the realization of a fertility-control vaccine for possums? *New Zealand J. Zool.* 38: 91-111.

Damjanov, I. 2000. *Histopatologi. Buku teks dan atlas berwarna*. Widya Medika. Jakarta. Pp. 3-6, 18.

Dannan, G.A. and Guengerich, F.P. 1982. Immunochemical comparison and quantitation of microsomal flavin-containing monooxygenases in various hog, mouse, rat, rabbit, dog, and human tissues. *Mol. Pharmacol*. 22: 787-794.

Das, P., Gupta, M., and Mazumdar, U.K. 2008. Studies on antifertility activities of the aqueous extract and aqueous suspension of carrot (*Daucus carota* L.) seed powder through oral administration on mice and rat. *Biosci. Biotechnol. Res. Asia*. 5:245-254.

Decker, M., Arand, M., and Cronin, A. 2009. Mammalian epoxide hydrolases in *xenobiotic* metabolism and signaling. *Arch. Toxicol*. 83:297-318.

DeNicola, A.J., Kesler, D.J. and Swihart, R.K. 1997. Dose determination and efficacy of remotely delivered norgestomet implants on contraception of white-tailed deer. *Zoo. Biology*. 16: 31-37.

Devine, P.J., Sipes, I.G., and Hoyer, P.B. 2001. Effect of 4-Vinyl Cyclohexene Diepoxide dosing in rats on GSH levels in liver and ovaries. *Toxicol. Sci*. 62:315-320.

Devine, P.J., Sipes, I.G., Skinner, M.K., and Hoyer, P.B. 2002. Characterization of a rat *in vitro* ovarian culture system to study the ovarian toxicant 4-Vinyl Cyclohexene diepoxide. *Toxicol.Appl. Pharmacol* 184:107-115.

Devine, P.J., Sipes, I.G., and Hoyer, P.B. 2004. Initiation of delayed ovotoxicity by *in vitro* and *in vivo* exposures of rat ovaries to 4-Vinyl Cyclohexene Diepoxide. *Reprod. Toxicol*. 19:71-77.

Devine, P.J., Hoyer, P.B., and Keating, A.F. 2009. *Current methods in investigating the development of the female reproduction system*. In: *Human Embryogenesis: Methods and Protocols* (Lafond, J. and Vaillancourt, C. (eds.). Vol. 550. Humana Press. Pp. 137-157.

De Vos, M., Devroey, P. and Fauser, B.C.J.M. 2010. Primary ovarian insufficiency. *Lancet*. 376 (9744): 911-921.

Dixit, V.P., Kimnna, P., and Bhargava, S.K. 1978. Effects of Momordica charantia L., Fruit extract on the testicular function of dog. *J. Med. Plant. Res.* 34:280.

Doerr, J.K., Hooser, S.B., Smith, B.J. and Sipes, I.G. 1995. Ovarian toxicity of 4-vinylcyclohexene and related olefins in B6C3F1 mice: role of diepoxides. *Chem. Res. Toxicol*. 8:963-969.

Dosumu, O.O., Akinola, O.B., Oremosu, A.A., Noronha, C.C. and Okanlawon, A.O. 2008. Antifertility effects of the aqueous extract of *Carica papaya* (Linn.) seeds on estrous cycle and ovulation of adult cyclic Sprague-Dawley rats. Nige. *J. Hlth. Biomed. Sci*. 7:31-33.

Douglas, G.W. 1959. Rabbit control by aerial baiting, effective new method. *J. Depart. Agricult. Victoria.* 57:145-158.

Duckworth, J., Byrom, A., Fisher, P. and Horn, C. 2006. *Pest control: does the answer lie in new biotechnologies? Biological invasions in New Zealand.* Springer. Pp. 421-434.

Dulbecco, R. and Vogt, M. 1954. Plaque formation and isolation of pure lines with poliomyelitis viruses. *J. Exp. Med.* 99 (2): 167–182.

Eagle, E.T. 1927. A quantitative study of follicular atresia in the mouse. *Am. J. Anat*. 39: 187.

Eaton, D.L. and Klaassen, C.D. 2001. *Principles of toxicology*. In: *Toxicology. The basic science of poisons*. 6th edition. McGraw Hill Companies, Inc. New York. USA. P. 11.

Edson, M.A., Nagaraja, A.K. and Matzuk, M.M. 2009. The mammalian ovary from genesis to revelation. *Endocr. Rev.* 30: 624-712.

Ellis, R.E., Yuan, J. and Horvitz, H.R. 1991. Mechanisms and functions of cell death. *Ann. Rev. Cell Biol*. 7:663-698.

Eppig, J.J. and Schroeder, A.C. 1989. Capacity of mouse oocytes from *preantral* follicles to undergo embryogenesis and development to live young after growth, maturation, and fertilization *in vitro*. *Biol. Reprod*. 41: 268-276.

Eppig, J.J. 1991. Intercommunication between mammalian oocytes and companion somatic cells. *Bioessays*. 13: 569-574.

Eppig, J.J. and O'Brien, M.J. 1996. Development *in vitro* of mouse oocytes from *primordial* follicles. *Biol. Reprod.* 54: 197-207.

Eppig, J.J., O'Brien, M. and Wigglesworth, K. 1996. Mammalian oocyte growth and development *in vitro*. *Mol. Reprod. Dev.* 44: 260-273.

Eppig, J.J. 2001. Oocyte control of ovarian follicular development and function in mammals. *Reprod*. 122: 829-838.

Eppig, J.J., Hosoe, M., O'Brien, M.J., Pendola, F.M., Requena, A. and Watanabe, S. 2000. Conditions that affect acquisition by mouse oocytes *in vitro*: FSH, inxulin, glucose and ascorbic acid. *Mol. Cell. Endocrinol.* 163: 109-116.

Everds, N.E., Synder, P.W., Bailey, K. L., Bolon, B., Creasy, D.M., Foley, G.L., Rosol, T.J., and Sellers, T. 2012. Interpreting stress respones during routine toxicity studies: a review of the biology, impact and assessment. *Toxicol. Pathol*. 00 (0): 1-55.

Fair, T., S.C.J. Hulshof, P. Hyttel, T. Greve and M. Boland. 1997. Oocyte ultrastructure in bovine *primordial* to early tertiary follicles. *Anat. Embryol*. 195 (4): 327-336.

Felicio, L.S., Nelson, J.F. and Finch, C.E. 1984. Longitudinal studies of estrous cyclicity in aging C57BL/6J mice. II. Cessation of cyclicity and the duration of persistent vaginal cornification. *Biol. Reprod.* 31: 446-453.

Flaws, J.A., Doerr, J.K., Sipes, I.G. and Hoyer, P.B. 1994a. Destruction of *preantral* follicles in adult rats by 4-Vinyl Cyclohexene Diepoxide. *Reprod. Toxicol*. 8:509-514.

Flaws, J.A., Salyers, K.L., Sipes, I.G., and Hoyer, P.B. 1994b. Reduced ability of rat *preantral* follicles to metabolize 4-Vinyl Cyclohexene Diepoxide *in vitro*. *Toxicol. Appl. Pharmacol*. 126:286-294.

Freshney, R.I. 2005. *Culture of animals. A Manual of Basic Technique*. 5th edition. Wiley-Liss. A John Wiley & Sons, Inc., Publication. Hoboken, New Jersey. Pp. 47-49.

Furrer, D., Sanschagrin, F., Jacob, S. and Diorio, C. 2015. Advantages and disadvantages of technologies for HER2 testing in breat cancer specimens. *Am. J. Clin. Pathol.* 144: 686-703.

Gage, K. 1999. Incidence of plague associated with increased winter-spring precipitation in New Mexico. *Amer. J. Trop. Med. Hyg*. 61: 814-821.

Gallagher, S., Winston, S.E., Fuller, S.A. and Huller, J.G.R. 2008. *Current protocols in molecular biology.* John Wiley & Sons, Inc. Pp. 10.8.1-10.8.28.

Ganguly, M.D. and Paramesh, R. 2010. Clinical evaluation of Evecare syrup in the treatment of infertility in women: an open study. *Ind. J. Clin. Pract*. 20 (11): 767-771.

Gao, J., Lauer, F.T., Mitchell, L.A. and Burchiel, S.W. 2007. Microsomal epoxide hydrolase is required for 7,12-Dimethylbenz(a)anthracene (DMBA)-induced immunotoxicity in mice. *Toxicol. Sci*. 98 (1): 137-144.

Garg, S.K. and Mathur, V.S. 1972. Effect of chromatographic fractions of *Daucus carota* Linn (seeds) on fertility in female albino rats. *J. Reprod. Fert.* 31:143-145.

Gasper, Y. and Watson, K. 2001. *Plague and yersiniasis.* In: William, E. & Barker, I (Eds.) *Infectious diseases of wild mammals*. Iowa State University Press. Pp. 313-329.

Geber, S., Megale, R., Vole, F., Lana, A.M.A., and Cabral, A.C.V. 2012. Variation in ovarian follicle density during human fetal development. *J. Assist. Reprod. Genet.* 29: 969-972.

Geddes, A.M.W. 1992. *The Relative Importance of Pre-harvest Crop Pest in Indonesia*. Chatham, U.K., Natural Resources Institute bulletin: P. 47.

Gelety, T.J. and Magoffin, D.A. 1997. Ontogeny of steroidogenic enzyme gene expression in ovarian theca-interstitial cells in the rat: regulation by paracrine theca-differentiating factor prior to achieving luteinizing hormone responiveness. *Biol. Reprod.* 56: 938-945.

Gilchrist, R.B., Lane, M. and Thompson, J.G. 2008. Oocyte-secreted factors: regulator of cumulus cell function and oocyte quality. *Hum. Rep. Update*. 14: 159-177.

Goldman, J.M., Murr, A.S., and Cooper, R.L. 2007. The rodent estrous cycle: Characterization of vaginal cytology and its utility in toxicological studies. *Birth Def. Res.* (part B) 80:84-97.

Gondos, B. 1970. *Germ cell relationships in the developing rabbit ovary*. In: Butt, W.R., Crooke, A.C. and Ryle, M. (Eds.) *Gonadotrophins and ovarian development*. Livingstone, Edinburgh. Pp. 239-247.

Goot, V.D. 1951. Perihal cara hidup dan pemberantasan tikus sawah di tanah rendah di pulau Jawa. *Landbouw* (Bogor Java) XXlll-4/5/6. h. 284-294.

Gore-Langton, R.E. and Armstrong, D.T. 1994. *Follicular steroidogenesis and its control*. In: Knobil, E. and Neill, J.D. (Eds). *The Physiology of reproduction*. Second edition. Volume 1. Raven Press. Ltd. New York. Pp. 571-627.

Gopinath, C. 2013. Toxicology and pathology of female reproductive tract. *Cell. Biol. Toxicol*. 29: 131-141.

Gougeon, A., and Chainy, G.B.N. 1987. Morphometric studies of small follicles in ovaries of women at different ages. *J. Reprod. and Fert*. 81:433-442.

Gougeon, A. 1996. Regulation of ovarian follicular development in primates: facts and hypothesis. *Endoc. Rev.* 17:121-155.

Grace, D., Abraham, S., Varghese, A. and Sathianarayanan, S. 2008. Absorption and metabolism of xenobiotics: an overview. *Int. J. Nut. Welln.* 7 (1): 1-4.

Greenwald, G.S. and Moor, R.M. 1989. Isolation and preliminary characterization of pig *primordial* follicles. *J. Reprod. Fertil*. 87 (2): 561-571.

Gregoraszccuk, E.L., Stoklosowa, S. and Wojtusiak, A. 1997. Organ culture as a model of studying follicular development and function of postnatal mouse ovaries. *Acta. Biol. Hung*. 48: 431-438.

Gregus, K.K. and Klaassen, C.D. 2001. *Mechanism of toxicity*. In: *Cassaret & Doull's Toxicology. The Basic Science of Poisons.* 6th edition. McGraw-Hill Companies, Inc. New York. Pp. 36-39.

Grizzle, T.B., George, J.D., Fail, P.A., Seely, J.C., and Heindel, J.J. 1994. Reproductive effects of 4-vinylcyclohexene in Swiss mice assessed by a continuous breeding protocol. *Fundam. Appl. Toxicol.* 22:122-129.

Guengerich, F.P. 2003. Cytochrome P450 oxidations in the generation of reactive electrophiles: epoxidation and related reactions. *Arch. Biochem. Biophys*. 409: 59-71.

Haas, J.R., Christian, P.J. and Hoyer, P.B. 2007. Effects of impending ovarian failure induced by 4-vinylcyclohexene diepoxide on fertility in C57BL/6 female mice. *Comp. Med*. 57: 443-449.

Hallberg, E. 1990. Metabolism and toxicity of *xenobiotic*s in the adrenal cortex, with particular reference to 7,12-dimethylbenz(a)anthracene. *J. Biochem. Toxicol.* 5: 71-90.

Hammock, B.D. and Ota, K. 1983. Differential induction of cytosolic epoxide hydrolase, microsomal epoxide hydrolase, and glutathione S-transferase activities. *Toxicol. Appl. Pharmacol.* 71: 254-265.

Hartman, C.G. 1944. Some new observations on the vaginal smear of the rat. *Yale J. Biol. Med.* 17: 99-112.

Hattori, N., Fujiwara, H., Maeda, M., Fujii, S. and Ueda, M. 2000. Epoxide hydrolase affects estrogen production in the human ovary. *Endocrinol*. 141: 3353-3365.

Heinrichs, W.L. and Juchau, MR. 1980. *Extrahepatic drug metabolism: the gonads*. In: Gram, T.E. (eds.). *Extrahepatic metabolism of drugs and other foreign compounds*. SP. Med. Sci. Books. New York. Pp. 319-322.

Herawati, N.A. and Sudarmaji. 2003. *Helminths of the rice field rat, Rattus argentiventer*. In: G.R. Singleton (Eds.). *Rat, mice and people: rodent biology and management*. ACIAR. Canberra. Pp. 55-56.

Hiremath, S.P., Rudresh, K., Badami, S., Patil, S.B., and Patil, S.R. 1999. Post-coital antifertility activity of *Acalypha indica* L. *J. Ethnopharmacol*. 67:253-258.

Hirshfield, A.N. 1989. *Granulosa* cell proliferation in very small follicles of cycling rats studied by long-term continuous tritiated thymidine infusion. *Biol. Reprod*. 41: 309-316.

Hirshfield, A.N. 1991a. Development of follicles in the mammalian ovary. *Int. Rev. Cytol.* 124:43-101.

Hirshfield, A.N. 1991b. Theca cells may be present at the onset of follicular growth. *Biol. Reprod.* 44:1157-1162.

Hirshfield, A.N. 1991c. Development of follicles in the mammalian ovary. *Int. Rev. Cytol.* 24: 43-99.

Holloway, A.C., Kellenberger, L.D., and Petrik, J.J. 2006. Fetal and neonatal exposure to nicotine disrupts ovarian function and fertility in adult female rats. *Endocrine*. 30:213-216.

Hoggatt, A.F., Hoggatt, J., Honerlaw, M. and Pelus, L.M. 2010. A spoonful of sugar helps the medicine go down: a novel technique to improve oral gavage in mice. *Journal of the American Association for Laboratory Anim. Sci.* 49 (3): 329-334.

Hooser, S.B., Douds, D.A., Hoyer, P.B. and Sipes, I.G. 1994. Long-term ovarian and hormonal alterations due to the ovotoxin, 4-Vinyl Cyclohexene. *Reprod. Toxicol.* 8:315-323.

Hosseini, B. and Eslamian, G. 2014. Association of dietary factors with male and female infertility: review of current evidence. *Thrita*. 3 (3): 1-9.

Hoyer, P.B., Devine, P.J., Hu, X., Thompson, K.E., and Sipes, I.G. 2001a. Ovarian toxicity of 4-Vinyl Cyclohexene Diepoxide: A mechanistic model. *Toxicol. Pathol.* 29:91-99.

Hoyer, PB. and Keating, A.F. 2014. Xenobiotic effects in the ovary: temporary versus permanent infertility. *Expert Opin. Drug. Metab. Toxicol*. 10: 511-523.

Hreinsson, J.G., Scott, J.E., Rasmussen, C., Swahn, M.L., Hsueh, A.J. and Hovatta, O. 2002. Growth differentiation factor-9 promotes the growth, development, and survival of human ovarian follicles in organ culture. *J. Clin. Endocrinol. Metab*. 87 (1): 316-321.

Hsueh, A.J., McGee, E.A., Hayashi, M. and Hsu, S.Y. 2000. Hormonal regulation of early follicle development in the rat ovary. *Mol. Cell. Endocrinol.* 163: 95-100.

Hughes, F.M. and Gorospe, W.C. 1991. Biochemical identification of apoptosis (programmed cell death) in *granulosa* cells: evidence for a potent mechanism underlying follicular atresia. *Endocrinol.* 129:2415-2422.

Humphrys, S. and Lapidge, S.J. 2008. Delivering and registering species-tailored oral antifertility products: a review. *Wildl. Res*. 35: 578-585.

Ibrahim, I.N., Sudomo, M., Morita, C., Uemura, S., Muramatsu, Y., Uemo, H., and Kitamura, T. 1996. Seroepidemiological survey of wild rats for Seoul virus in Indonesia. *Japan. J. Med. Sci. Biol*. 49 (2):69-74.

Ibrahim, I.N., Okabayashi, T., Ristiyanto, Lestari, E,W., Yanase, T., Muramatsu, Ueno, H., and Morita, C. 1999. Serosurvey of wildlife rodents for rickettsiosis (spotted fever, murine typhus, and Q fever) in Java Island, Indonesia. *Europ. J. Epidemiol.* 15:89-93.

Ibrahim, I.N. and Ristiyanto. 2005. Penyakit bersumber rodensia (tikus dan mencit) di Indonesia. *Jurnal Ekologi Ke*sEH*atan*. 4(3):308-315.

Ibrahim, I.N., Winoto, I., Wongsrichanalai, C., Blair, P., and Stoops, C. 2006. Abundance and distribution of *Xenopsylla cheopist* on small mammals collected in West Java, Indonesia during rodent-borne disease surveys. *Southeast Asian J. Tropic. Med. Publ. Health*. 37 (5): 932-936.

Igawa, Y., Keating, A.F., Rajapaksa, K.S., Sipes, I.G. and Hoyer, P.B. 2009. Evaluation of ovotoxicity induced by 7,12-dimethylbenz(a)anthracene and its 3,4-diol metabolite utilizing a rat *in vitro* ovarian culture system. *Toxicol. Appl. Pharmacol*. 234: 361-369.

Ingram, D.L. 1959. The effect of estrogen on the atresia of ovarian follicles. *J. Endocr*. 19: 123.

Inomata, A. and Sasano, H. 2015. Practical approaches for evaluating adrenal toxicity in nonclinical safety assessment. *J. Toxicol. Pathol*. 28: 125-132.

Ioannides, C. 2002. *Xenobiotic metabolism: an overview*. In: Ioannides, C (Eds). *Enzyme systems that meabolise drugs and other xenobiotics.* John Wiley & Sons Ltd. New York. USA. Pp. 2-3.

Ito, A., Mafune, N. and Kimura, T. 2009. Collaborative work on evaluation of ovarian toxicity 4) Two-or four-week repeated dose study of 4-vinyl cyclohexene diepoxide in female rats. *J. Toxicol. Sci*. 34 (Special Issue I) SP53-SP58.

Jacob, J., Sudarmaji and Singleton, G.R. 2003. *Ecologically-based management of ricefield rats on a village scale in West Java-experimental approach and assessment of habitat use.* Pp 191-196. In: Singleton, G.R., Hinds, L.A., Krebs, C.J. and Spratt, D. (Eds.). *Mice, Rats and People: Rodent Biology and Management.* ACIAR Monograph 96, ACIAR, Canberra, Australia.

Jacob, J., Herawati, N.A., Davis, S.A. and Singleton, G.R. 2004. The impact of sterilized females on enclosed populations. *J. Wildl. Manage*. 68 (4):1130-1137.

Jacob, J. and Matulessy, J. 2004. Effects of imposed sterility on movement patterns of female ricefield rats. *J. Wild. Manage*. 68: 1138-1144.

Jacob, J., Singleton, G.R, and Hinds, L. A. 2008. Fertility control of rodent pests. *Wildl. Res*. 35:487-493.

Jensen, E.C. 2012. The basics of western blotting. *The Anat. Rec*. 295: 368-371.

Jewgenow, K. 1998. Role of media, protein and energy supplements on maintenance of morphology and DNA-synthesis of small *preantral* domestic cat follicles during short term culture. *Theriogenol*. 49: 1567-1577.

Jin, S.Y., Lei, L., Shikanov, A., Shea, L.D., Woodruff, T.K. and Zelinski, A.B. 2009. A novel two-step strategy for *in vitro* culture of early stage ovarian follicles in the mouse. *Fertil. Steril*. 93 (8): 2633-2639.

Johnson, M.D. 2007. *The rat*. In: Gad, S.C. (Eds.). *Animal models in toxicology*. Boca rotan (FL). CRC Press. Pp. 150-193.

Joshi, H. and Chinoy, N.J. 1996. Reversible antifertility effects of benzene extract of papaya seed on female rats. *Phytother. Res*. 10:327-328.

Junqueira, L.C., Carneiro, J., and Kelley, R.O. 1998. *Basic Histology. A Lange Medical Book.* Appleton & Lange. A Simon & Schuster Company. Connecticut. P. 62.

Kacinskis, M.A., C.M. Lucci, M.C.A. Luque and S.N. Bao. 2005. Morphometric and ultrastructural characterization of *Boc indicus* preantral follicles. *Anim. Reprod. Sci.* 87 (1-2): 45-47.

Kafka, A.P., McLeod, B.J., Rades, T., and McDowell, A. 2011. Release and bioactivity of PACA nanoparticles containing D-Lys_6-GnRH for brushtail possum fertility control. *J. Controld. Rel*. 149: 307-313.

Kang, Y., Anderson, W.A. and DeSombre, E.R. 1975. Modulation of uterine morphology and growth by estradiol-17β and an estrogen antagonist. *J. Cell Biol*. 64: 682-691.

Kao, S., Sipes, I.G., and Hoyer, P.B. 1999. Time course of 4-vinylcyclohexene diepoxide-induced follicle destruction in rats and mice. *Reprod. Toxicol.* 13:67-75.

Kappeler, C. and Hoyer, P.B. 2012. 4-vinyicyclohexene diepoxide: a model chemical for ovotoxicity. *Syst. Biol. Reprod. Med.* 58 (1): 57-62.

Keating, A.F., Mark, C.J., Sen, N., Sipes, I.G. and Hoyer, P.B. 2009. Effect of phosphatidylinositol-3 kinase inhibition on ovotoxicity caused by 4-vinylcyclohexene diepoxide and 7,12 dimethylbenz a anthracene in neonatal rat ovaries. *Toxicol. Appl. Pharmacol*. 241: 127-134.

Kegalu, S.L. 2004. Histological analysis of the 'critical point' in follicular development in mice. *Reprod. Med. Biol.* 3: 141-145.

Keller, D.A., Carpenter, S.C., Cagen, S.Z. and Reitman, F.A. 1997. *In vitro* metabolism of 4-vinylcyclohexene diepoxide in rat and mouse liver, lung and ovary. *Toxicol. Appl. Pharmacol*. 144: 36-44.

Kerr, J.B., Myers, M. and Anderson, R.A. 2013. The dynamics of the *primordial* follicle reserve. *Reprod. Res.* 146: R205-R215.

Kirkpatrick, J.F., Lyda, R.O. and Frank, K.M. 2011. Contraceptive vaccines for wildlife: a review. *Am. J. Reproduct. Immunol*. 66: 44-50.

Kitteringhamn N.R., Davis, C., Howard, N., Pirmohamed, M. and Park, B.K. 1996. Interindividual and interspecies variation in hepatic microsomal epoxide hydrolase activity: studies with with cis-stilbene oxide, carbamazepine 10, 11-epoxide and naphtalane. *J. Pharmacol. Exp. Ther*. 278: 1018-1027.

Kholkute, S.D., Chatterjee, S., and Udupa, K.N. 1976. Effect of *Hibiscus rosasinensis* Linn on estrous-cycle and reproductive organs in rats. *Indian. J. Exp. Biol*. 14: 703-704.

Klaassen, C.D. 2001. *Xenobiotic* transpoters: another protective mechanism for chemicals. *Internatl. J. Toxicol.* 21: 7-12.

Klinger, F.G. and De Felici, M. 2002. *In vitro* development of growing oocytes from fetal mouse oocytes: stage-specific regulation by stem cell factor and *granulosa* cells. *Dev. Biol.* 244 (1) : 85-95.

Knigge, K.M. and Leathem, J.H. 1956. Growth and atresia follicles in the ovary of the hamster. *Anat. Rec*. 124, 680.

Knobil, E. and Neill, J.D. 1994. *The Physiology of Reproduction*. Volume 2. Second edition. Raven Press, New York. Pp. 373-377.

Kodama, T., Yoshida, J., Miwa, T., Hasegawa, D. and Masuyama, T. 2009. Collaborative work on evaluation of ovarian toxicity 4) Effects of fertility study of 4-vinyl cyclohexene diepoxide in female rats. *J. Toxicol. Sci*. 34 (Special Issue I) SP59-SP63.

Koivunen, M.E. and Krogsrud, R.I. 2006. Principles of immunochemical techniques used in clinical laboratories. *Labmed*. 37 (8): 490-497.

Kosasih, H., Ibrahim, I.N., Wicaksono, R., Alisjahbana, B., Hoo, Y., Yo, L.H., Antonjaya, U., Widjaja, S., Winoto, I., Williams, M., and Blair, P.J. 2011. Evidence of human hantavirus infections and zoonotic investigation of hantavirus prevalence in rodents in Western Java, Indonesia. *Vector-Borne and Zoonotic Diseases*. 11 (6):709-713.

Krause, R.J., Shaher, J.E. and Elfarra, A.A. 1997. Epoxide hydrolase-dependent metabolism of butadiene monoxide to 3-butene-1,2-diol in mouse, rat, and human liver. *Drug. Metab. Dipos.* 25: 1013-1015.

Krishna, D.R. and Klotz, U. 1994. Extrahepatic metabolism of drugs in humans. *Clin. Pharmacokinet*. 26:144-160.

Lam, Y.M. 1983. Reproduction in the ricefield rat, *Rattus argentiventer*. *Malay. Nat. J.* 36:249-282.

Lamberston, C.J., Greenbaum, D.F., Wright, K.H. and Wallach, E.E. 1976. *In vitro* studies of ovulation in the perfused rabbit ovary. *Fertil. Steril*. 27: 178-187.

Latendresse, J.R., Brooks, C.L. and Capen, C.C. 1994. Pathologic effects of Butylated Triphenyl Phosphate-based hydraulic fluid and Tricresyl Phosphate on the adrenal gland, ovary and testis in the Fischer-344 rat. *Toxicol. Pathol*. 22 (4): 341-352.

Latendresse, J.R., Brooks, C.L. and Capen, C.C. 1995. Toxic effects of Butylated Triphenyl Phosphate-based hydraulic fluid and Tricresyl Phosphat in female Fischer F344 rats. *Vet. Pathol.* 32: 394-402.

Lehman, L.D. and McKeeman. 2008. Absorption, distribution, and excretion of toxicant. In: Klaassen, C.D. (eds.) *Casarett & Doull's. Toxicology. The basic science of poisons*. Seventh edition. McGraw-Hill. Medical Publishing Division. New York. Pp. 131-160.

Leung, L.K.P. and Sudarmaji. 1999. Techniques for trapping the rice-field rat, *Rattus argentiventer*. *Malay. Nat. J*. 53: 323-333.

Leung, L.K.P., Singleton, G.R., Sudarmaji, and Rahmini. 1999. *Ecologically-based population management of the ricefield rat in Indonesia.* In: Singleton, G.R., Hinds, L.A., Leirs, H. and Zhang, Z. (eds.). *Ecologically-Based Management of Rodent Pests*. Australian Centre for International Agricultural Research, Canberra, Australia. Pp. 305-318.

Leung, P.C.K. and Adashi, E.Y. 2004. *The Ovary*. Second edition. Elsevier Academic Press. Calirfornia, USA. P. 113.

Lintern-Moore, S. and Moore, G.P.M. 1979. The initiation of follicle and oocyte growth in the mouse ovary. *Biol. Reprod.* 20: 773-778.

Lohff, J.C., Christian, P.J., Marion, S.I., Arrandale, A., and Hoyer, P.B. 2005. Characterization of cyclicity and hormonal profile with impending ovarian failure in a novel chemical-induced mosuse model of perimenopause. *Comp Med.* 55: 523-527.

Lohff, J.C., Christian, P.J., Marion, S.I., and Hoyer, P.B. 2006. Effect of duration of dosing on onset of ovarian failure in a chemical-induced mouse model of perimenopause. *Menopause.* 13: 482-488.

Long, J.A. and Evans, H.M. 1922. The oestrous cycle in the rat and its associated phenomena. *Mem. Univ Calif*. 6: 1-148.

Lu, A.Y. and Miwa, G.T. 1980. Molecular properties and biological functions of microsomal epoxide hydrolase. *Annu. Rev. Pharmacol. Toxicol*. 20: 513-531.

Luster, M.I. and Rosenthal, G.J. 1993. Chemical agents and the immune respone. *Environ. Health. Perspect*. 100: 219-226.

Mahmood, T. and Yang, P.C. 2012. Western blot: technique, theory and trouble shooting. *North Am. J. Med. Sci*. 4 (9): 429-434.

Majumder, P.K., Dasgupta, S., Mukhopadhaya, R.K., Mazumdar, U.K., and Gupta, M. 1997. Anti-steroidogenic activity of the petroleum ether extract and fraction 5 (fatty acids) of carrot (*Daucus carota* L.) seeds in mouse ovary. *J. Ethnopharmacol.* 57: 209-212.

Majumder, U.K., Gupta, M. and Patro, V.J. 1998. Studies on antifertility activity of metahnolic extract of *Daucus carota* Linn. Seeds. *Indian J. Nat. Prod.* 14: 33-37.

Malamed, S., Gibney, J.A. and Ojeda, S.R. 1992. Ovarian innervations develops before initiation of folliculogenesis in the rat. *Cell. Tissue. Res.* 270: 87-93.

Mandal, K., Dasgupta, S., and Chattopadhyay, B.D. 2004. Nicotine induced alterations on reproductive organs of female rats under protein deficient condition. *Indian. J. Exp. Biol*. 42: 330-332.

Mandl, A.M. and Zuckerman, S. 1950. The number of normal and atretic ova in the mature rat. *J. Endocr*. 6: 426.

Mandl, A.M. 1951. The phases of the estrous cycle in the adult white rat. *J. Exp Biol.* 28: 576-584.

Marsh, R.E. and Howard, W.E. 1970. Chemosterilants as an approach to rodent control. Vertebrate pest conference proceedings collection. *Proceedings of the 4th Vertebrate Pest*. University of Nebraska, Lincoln. Pp. 55-63.

Martinovich, P.N. 1938. The development *in vitro* of the mammalian gonad-ovary and ovogenesis. *Proc. R. Soc. Lond. (Biol)*. 125: 232-249.

Mattison, D.R. and Thorgeirsson, S.S. 1979. Ovarian aryl hydrocarbon hydroxylase activity and *primordial* oocyte toxicity of polycyclic aromatic hydrocarbons in mice. *Cancer Res*. 38; 1368-1373.

Mattison, D.R. and Schulman, J.D. 1980. How *xenobiotic* compounds can destroy oocytes. *Contemp. Obst. Gynec.* 15 (3):157-169.

Mattison, D.R. , Shiromizu, K., and Nightingale, M.S. 1983. Oocyte destruction by polycyclic aromatic hydrocarbons. *Am. J. Ind. Med*. 4: 191-202.

Mattison, D.R. 1985. *Clinical manifestations of ovarian toxicity.* In: Dixon, R.L (eds.). Reproductive toxicology Raven Press. New York. Pp. 109-130.

Mauldin, R.E. and Miller, L.A. 2007. *Wildlife contraception: targeting the oocyte.* USDA National Wildlife Research Center Symposia. In: *Managing Vertebrate Invasive Species: Proceedings of an International Symposium* (G.W. Witmer, W.C. Pitt, K.A. Fagerstone, Eds). USDA/APHIS/WS, National Wildlife Research Center, Fort Collins, Colorado, USA. Pp. 434-444.

Mayer, L.P., Pearsall, N.A., Christian, Devine, P.J., Payne, P.J., McCuskey, C.M., Marion, M.K., Sipes, I.G., and Hoyer, P.B. 2002. Long-term effects of ovarian follicular depletion in rtas by 4-vinylcyclohexene diepoxide. *Reprod. Toxicol*. 16:775-781.

Mayer, L.P., Devine, P.J., Dyer, C.A. and Hoyer, P.B. 2004. The follicle-depleted mouse ovary produces androgen. *Biol. Reproduction.* 71:130-138.

Mayle, B.A., Ferryman, M., Peace, A., Yoder, C.A., Miller, L. and Cowan, D. 2012. The use of DiazaCon^{TM} to limit fertility by reducing serum cholesterol in female grey squirrels, *Sciurus carolinensis*. Wiley Online Library paper. 1167

McCann, S.M. and Ojeda, S.R. 1992. *The anterior pituitary & hypothalamus*. In: *Textbook of Endocrine System.* Second edition. Eds. Griffin, J.E. and Ojeda, S.R. Oxford University Press. New York. P.87.

McGee, E.A., Perlas, E., LaPolt, P.S., Tsafriri, A. and Hsueh, A.J.W. 1997a. Follicle-stimulating hormone enhances the development of *preantral* follicles in juvenile rats. *Biol. Reprod*. 57: 990-998.

McGee, E., Spears, N., Minami, S., Hsu, S.Y., Chun, S.Y., Billig, H. and Hsueh, A.J.W. 1997b. *Preantral* ovarian follicle in serum-free culture: suppression of apoptosis after activation of the cyclic guanosine 3',5'-monophosphate pathway and stimulation of growth and differentiation by follicle-stimulating hormone. *Endocrinol*. 138: 2417-2424.

McGee, E.A., Hsu, S.Y., Kaipia, A. and Hsueh, A.J.W. 1998. Cell death and survival during ovarian follicle development. *Mol. Cel. Endocrinol.* 140: 15-18.

McGee, E.A. and Hsueh, A.J.W. 2009. Initial and cycle recruitment of ovarian follicles. *Endocrinol. Rev*. 21(2):200-214.

McIntire, K. 2001. Rodent gavage technique concerns: avoiding excess mortality. *Contemp. Top. Lab. Anim. Sci.* 40: 7.

McLean, A.C., Valenzuela, N., Fai, S. and Bennett, S.A.L. 2012. Performing vaginal lavage, crystal violet staining, and vaginal cytological evaluation for mouse estrous cycle staging identification. *J. Visuald Expermnts.* 67: 1-6.

Meehan, A.P. 1984. *Rats and Mice. Their Biology and Control*. Entokil Ltd. Felcourt East Grinsstead, West Sussex. P. 16.

Meijer, M.K., Spruijt, B.M., van Zutphen, L.F. and Baumans, V. 2006. Effect of restraint and injection methods on heart rate and body temperature in mice. *Lab. Anim.* 40:382-391.

Michael, B., Yano, B., Sellers, R.S., Perry, R., Morton, D., Roome, N., Johnson, J.K. and Schafer, K. 2007. Evaluation of organ weights for rodent and non-rodent toxicity studies: a review of regulatory guidelines and a survey of current practices. *Toxicol. Pathol*. 35: 742-750.

Mitchell, P.A. and Burghardt, R.C. 2005. The ontogeny of nexuses (gap junctions) in the ovary of the fetal mouse. *Anat. Rec*. 214 (3): 283-288.

Montano, M.M., Welshons, W.V. and von Saal, F.S. 1995. Free estradiol in serum and brain uptake of estradiol during fetal and neonatal sexual differentiation in female rats. *Biol. Reprod.* 53 (5): 1198-1207.

Morgan, D.R. 1982. Field acceptance of non-toxic and toxic baits by populations of the brushtail possum (*Trichosorus vulpecula* Kerr). *New Zealand Journal of Ecology*. 5:36-43.

Muhammad, F.S., Goode, A.K., Kock, N.D., Arifin, E.A., Cline, J.M., Adams, M.R., Hoyer, P.B., Christian, P.J., Isom, S., Kaplan, J.R. and Appt, S.E. 2009. Effects of 4-Vinyl Cyclohexene Diepoxide on peripubertal and adult Sprague-Dawley rats; ovarian, clinical, and pathologic outcomes. *Compar. Med.* 59 (1):46-59.

Mukhtar, H., Philpot, R.M., and Bend, J.R. 1978a. Metabolizing enzyme activities and cytochrome P-450 content of rat ovaries during pregnancy. *Biochem. Biophys. Res. Commun*. 81:89-98.

Mukhtar, H., Philpot, R.M. and Bend, J.R. 1978b. The postnatal development of microsomal epoxide hydrolase, cytosolic glutathione S-transferase and mitochondrial and microsomal cytochrome P-450 in adrenals and ovaries of female rats. *Drug. Metab. Dispos*. 6:577-583.

Murakami, O., V.L.T. Kirana., J. Priyono dan H. Tristiani 1992. *Tikus Sawah.* Laporan akhir kerjasama Indonesia-Jepang bidang perlindungan

tanaman pangan (ATA-162). Direktorat Bina Perlindungan Tanaman, Jakarta. Hal. 34-36.

Murray, A., Biol, M.I. and Spears, N. 2000. Follicular development *in vitro*. *Semin. Reprod. Med*. 18 (2): 109-122.

Murray, A.A., Molinek, M.D. and Baker, S.J. 2001. The role of ascorbic acid in promoting follicle integrity and survival in intact murine ovarian follicles *in vitro*. *Reprod*. 121: 89-96.

Murphy, S.J., Smith, P., and Shaivitz, A.B. 2001. The effect of brief halothane anesthesia during daily gavage on complications and body weight in rats. *Contemp. Top. Lab. Anim. Sci.* 40: 9-12.

Muruvi, W., Picton, H.M, Rodway, R.G. and Joyce, J.M. 2005. *In vitro* growth of oocytes from *primordial* follicles isolated from frozen-thawed lamb ovaries. *Theriogenol*. 64: 1357-1370.

Nanji, A.A. and Hiller-Sturmhofel, S. 1997. Apoptosis and necrosis. *Res.Upd*. 21 (4): 325-330.

Nash, P., Furcolow, C.A., Bynum, K.S, Yoder, C.A., Miller, L.A. and Johnston, J.J. 2007. 20,25-Diazacholesterol as an oral contraceptive for black-tailed prairie dog population management. *Hum. Wildl. Conflicts*. 1: 60-67.

Nebendhal, C. 2000. *Routes of administration*. In: Krinke, G.J. (Eds.). *The laboratory rat*. London (UK). Academic Press. Pp. 463-483.

Nephew, K.P., Long, X., Osborne, E., Burke, K.A. Ahluwalia, A. and Bigsby, R.M. 2000. Effect of estradiol and estrogen receptor expression in rat uterine cell types. *Biol. Reprod*. 62: 168-177.

Newton, H., Picton, H.M. and Gosden, R.G. 1999. *In vitro* growth of oocytes *granulosa* cell complexes isolated from cryopreserved ovine tissue. *J. Reprod. Fertil.* 115: 141-150.

Nickerson, D.F., Weaver, M.L., and Tse, F.L.S. 1994. The effect of oral dose volume on the absorption of a highly and a poorly water soluble drug in the rat. *Biopharmaceutics Drugs. Dispos.* 15: 419-429.

Niswender, G.D., Juenge, J.L., Silva, P.J., Rollyson, M.K. and Mcintuish, E.W. 2000. Mechanims controlling the function and life span of the corpus luteum. *Physiol. Rev*. 80: 2-29.

Obata, Y.M., Kono, T. and Hatada, I. 2002. Maturation of mouse fetal germ cells *in vitro*. *Nature*. 418: 97-98.

O'Brien, M.J., Pendola, J.K. and Eppig, J.J. 2003. A revised protocol for *in vitro* development of mouse ooscytes from *primordial* follicles dramatically improves their developmental competence. *Biol. Reprod.* 68 (5): 1682-1686.

O'Hurley, G., Sjostedt, E., Rahman, A., Li, B., Kampf, C., Ponten, F., Gallagher, W.M. and Lindskog, C. 2014. Garbage in, garbage out: A critical evaluation of strategies used for validation of immunohistochemical biomarkers. *Mol. Oncol*. 8: 783-798.

Ojeda, S.R., Wheaton, J.E., Jameson, H.E., and McCann, S.M. 1976. The onset of puberty in the female rat. I. Changes in plasma prolactin, gonadotropins, LHRH levels and hypothalamic LHRH content. *Endocrinol.* 98:630-638.

Ojeda, S.R. and Griffin, J.E.. 1992. *Organization of the endocrine system*. In: *Textbook of Endocrine System.* Second edition. Eds. Griffin, J.E. and Ojeda, S.R. Oxford University Press. New York. P.7.

Ojeda, S.R. . 1992. *Female reproductive function*. In: *Textbook of Endocrine System.* Second edition. Eds. Griffin, J.E. and Ojeda, S.R. Oxford University Press. New York. Pp.138-139.

Oka, R and Hrudka, F. 1984. Comparation of the effects of gossypol, estradiol-17 beta and testosterone compensation on male rat reproductive organ. *Biol. Reprod.* (30): 1198-1207.

Okva, K., Tamoseviciute, E., Ciziute, A., Pokk, P., Ruksenas, O., and Nevalainen, T. 2006. Refinements for intragastric gavage in rats. *Scand. J. Lab. Anim. Sci.* 33 (4): 243-251.

Omo, G.D. and Palmery, M. 2002. Fertility control in vertebrate pest species. *Contracept*. 65:273-275.

Onyije, F.M. 2012. Drug: a ,ajor cause of infertility in male. *Anim. J. Med. Pharm. Res*. 2 (2): 30-37.

Pangestiningsih, T.W., Selan, Y.N., Amalo, F.A., Ndaong, N.A. and Lenda, V. 2014. Histological features of catecholaminergic neuron in substantia nigra induced by paraquat dichloride (1,1-dimethyl-4,4, bipyridinium) in rat as a model of Parkinson disease. *Indon. J. Biotech*. 19 (1): 91-98.

Paesi, F.J.A. 1949. The relation between the rate of growth of follicle and the shape of the frequency curve presenting their variability in size. *Acta Endocr. Copenh*. 3: 173.

Palupi, J. 2008. Pengaruh pemberian ekstrak kulit buah manngis (*Garcinia mangostana*, L) per oral terhadap folikulogenesis *ovarium* mencit (*Mus musculus*). *Jurnal Ke*sEH*atan*. VI (2).

Paramasvaran, S., Sani, R.A., Kaur, H., Krishnasany, M., Jeffrey, J., Raj, S., Ghazali, S.M., and Hock, L.K., 2009. Endo-parasite fauna of rodents caught in five wet markets in Kuala Lumpur and its potential zoonotic implications. *Trop. Biomed*. 26 (1):67-72.

Parkinson, A. 2001. Biotransformation of *xenobiotic*s. In: *Toxicology the basic science of poisons.* (Eds. Klaassen, C.D.). Sixth Edition. McGraw Hill Medical Publishing Division. New York. Pp. 133-143.

Parkinson, A. and Ogilvie, B.W. 2008. Biotransformation of *xenobiotic*s. In: Casarett & Doull's Toxicology. The basic science of poisons. (Eds. Klaassen, C.D.). Seventh Edition. McGraw-Hill. Medical Publishing Dividion. New York. Pp. 161-304.

Parrott, J.A. and Skinner, M.K. 1999. Kit-ligand/stem cell factor induces *primordial* follicle development and initiates folliculogenesis. *Endocrinol*. 140: 4262-4271.

Patil, S.R., Ravindra, P., Patil, S.R., Londonkar, R., and Patil, S.B. 1998. Nicotine induced ovarian and uterine changes in albino mice. *Indian. J. Physiol. Pharmacol.* 42: 503-508.

Pedersen, T. and Peters, H. 1968. Proposal for a classification of oocytes and follicles in the mouse ovary. *J. Reprod. Fertil* 17: 555-557.

Perez, G.T. and Apfelbaum, M.E. 1992. Modulatory effect of steroid hormones on GnRH-induced LH secretion by cultured rat pituitary cells. *Canad. J. Physiol. Pharmacol.* 70: 963-969.

Phan, T.T., Tam, N.T., Khan, L.T.L., Ogasawara, N., Nakadai, A., Iwata, T., Kamada, T., and Hayashidani, H. 2005. Prevalence of *Salmonella spp* in rice field rats in the Mekong Delta, Vietnam. *J. Vet. Epidemiol*. 9 (2):85-88.

Picton, H.M., Danfour, M.A., Harris, S.E., Chambers, E.I. and Huntriss, J. 2003. Growth and maturation of oocytes *in vitro*. *Reprod. Suppl.* 61: 445-462.

Picton, H.M., Harris, S.E., Muruvi, W. and Chamber, E.L. 2008. Focus on fertility preservation. The *in vitro* growth and maturation of follicles. *Reprod. Rev*. 136: 703-715.

Plyusnina, A., Ibrahim, I.N., Herlina, Winoto, I., Porter, K.R., Gotama, I.B.I., Lundkvist, A., Vaheri, A., and Plyusnin, A. 2004. Identification of Seoul Hantavirus in R. norvegicus in Indonesia. *Scandinavian Journal of Infectious Diseases*. 36 (5): 356-359.

Pombinho A.R., Laizé, V., Molha D.M., Marques S.M.P., and Cancela M.L. 2004. Development of two bone-derived cell lines from the marine teleost *Sparus aurata*; evidence for extracellular matrix mineralization and cell-type-specific expression of matrix Gla protein and osteocalcin. *Cell. Tissue Res.* 315 (3): 393–406.

Rahmini dan Sudarmaji, 1997. Penelitian variasi pakan tikus sawah pada berbagai *stadium*pertumbuhan tanaman padi. Prosiding Seminar Nasional Biologi XV. PBI Cabang Lampung dan UNILA. Hal. 1525-1528.

Rajah, R., Glaser, E.M. and Hirshfield, A.N. 1992. The changing architecture of the neonatal rat ovary during histogenesis. *Dev. Dyn*. 194: 177-192.

Rajapaksa, K.S. 2007. The role of ovarian metabolism in 4-Vinylcyclohexene metabolites and 7,12-dimethylbenz(A)anthracene-induced ovotoxicity in mice. Dissertation. Faculty of Graduate Interdisciplinary Program in Physiological Sciences. The University of Arizona. Pp. 25-27.

Rajapaksa, K.S., Sipes, I.G. and Hoyer, P.B. 2007. Involvement of microsomal epoxide hydrolase enzyme in ovotoxicity caused by 7,12-dimethylbenz[a]anthracene. *Toxicol. Sci.* 96: 327-324.

Raji, Y., Morakinyo, A.O., Oloyo, A.K., Akinsomisoye, O.S., Olufadekemi, T., and Kunle-Alabi, T. 2005. Impact of the chloroform extract of Carica papaya seed on oestrus cycle and fertility in female albino rats. *J. Med. Sci.* (Pakistan). 5: 337-343.

Ralph, J.H., Wilmut, I. and Telfer, E.E. 1995. *In vitro* growth of bovine *preantral* follicles and the influence of FSH on follicle and oocyte diameter. *J. Reprod. Fertil. Abstr.* Ser. 15: 6.

Ramos-Vara, J.A. 2005. Technical aspects of histochemistry. *Vet. Pathol*. 42: 405-426.

Rao, G.N., Peace, T.A. and Hoskins, D.E. 2001. Training could prevent deaths due to rodent gavage procedure. *Contemp. Top. Lab. Anim. Sci*. 40: 7-8.

Rao, M.C. and Gibori, G. 1987. Corpus luteum: animal models of possible relevance to reproductive toxicology. *Reproduct. Toxicol.* 1 (1): 61-69.

Rappaport, S. and Fraser, D. 1977. Air sampling and analysis in a rubber vulcanization area. *Am Ind Hygiene Assoc*. 38: 205-210.

Ribelin, W.E. 1984. The effects of drugs and chemicals upon the structure of the adrenal gland. *Fund. Appl. Toxicol*. 4: 105-119.

Richards, J.S. 1980. Maturation of ovarian follicles: actions and interactions of pituitary and ovarian hormones on follicular cell differentiation. *Physiol. Rev*. 60:51-89.

Rochman. 1982. Bio-ekologi rats in food crops. Compilation on lecture note on small mammal biology. Biotrop, Bogor. Hal.23-24.

Rochman dan Sudarmaji. 1997. Pola reproduksi tikus sawah *Rattus argentiventer* Rob and Kloss pada ekosistem padi sawah. *Prosiding III Seminar Nasional Biologi XV*. PBI Cabang Lampung dan UNILA, Hal. 1534-1537.

Rodrigues, P., Limback, D., McGinnis, L.K., Plancha, C.E. and Albertini, D.F. 2009. Multiple mechanisms of germ cell loss in the perinatal mouse ovary. *Reprod. Res.* 137: 709-720.

Rose, U.M., Hanssen, R.G. and Kloosterboer, H.J. 1999. Development and characterization of an *in vitro* ovulation model using mouse ovarian follicles. *Biol. Reprod.* 61: 503-511.

Rose, R.L. and Hodgson, L. 2004. *Metabolism of toxicants*. Pp. 111-112. In: Hodgson, E. (Eds). *A textbook of modern toxicology*. 3rd edition. John Wiley & Sons, Inc. New York.

Rosen, L.B. 2011. Nasogastric tube placement in rabbits. *J. Exot. Pet. Med.* 20: 27-31.

Rosol, T.J., Yarrington, J.T., Latenderesse, J. and Capen, C.C. 2001. Adrenal gland: structure, function and mechanisms of toxicity. *Toxicol. Pathol*. 29 (1): 41-48.

Ross, J.S. and Fletcher, J.A. 1998. The HER-2/neu oncogene in breast cancer: prognostic factor, predictive factor, and target for therapy. *Oncol*. 3: 237-252.

Roy, S.K. and Greenwald, G.S. 1985. An enzymatic method for dissociation of intact follicles from the hamster ovary: histological and quantitative aspects. *Biol. Reprod.* 32:203-215.

Rozman, K.K. and Klaassen, C.D. 2001. *Absorbtion, distribution and excretion of toxicants.* In: *Cassaret & Doull's Toxicology. The basic science of poisons.* 6th edition. McGraw-Hill Companies, Inc. New York. Pp.114-119.

Ryle, M. 1969. Morphological respones to pituitary gonadotrophins by mouse ovaries *in vitro. J. Reprod. Fertil*. 20: 307-312.

Salyers, K.L., Zheng, W. and Sipes, I.G. 1993. Disposition and toxicokinetics of 4-vinyl-1-cyclohexene diepoxide in female F-344 rats and $B6C3F_1$ mice. *ISSX Proc*. 4 (Suppl). 169.

Salyers, K.L. 1995. Disposition and metabolism of 4-Vinyl-1-cyclohexene diepoxide in female fischer 344 rats and $B6C3F_1$ mice. Dissertation for Doctor of Phylosophy in Pharmacology and Toxicology graduate college. The University of Arizona. US.

Sambrook, J. and Russell, D.W. 2001. Molecular cloning a laboratory manual. Third edition. Volume 3. Cold Spring Harbor Laboratory Press. Cold Spring Harbor, New York. Pp. A8.40-A8.55

Santos, S.S.D., Ferreira, M.A.P., Lima, M.Y.S., Sampaio, R.V., Cordeiro, M.S., Silva, T.V.G., Costa, N.N., Miranda, M.S. and Ohashi, O.M. 2010. Quantification, morphology and ultrastructure of *preantral* follicles in buffalo (*Bubalus bubalis*) fetuses. *Reproduction in domestic animals*. Doi: 10.1111/J.1439-0531. 01616.x.ISSN 0936-6768.

Santos, S.S.D., Ferreira, M.A.P., Pinto, J.A., Sampaio, R.V., Carvalho, A.C., Silva, T.V.G., Costa, N.N., Cordeiro, M.S., Miranda, M.S., Ribeiro, H.E.L. and Ohashi, O.M. 2013. Characterization of folliculogenesis and the occurrence of apoptosis in the development of the bovine fetal ovary. *Theriogenol*. 79: 344-350.

Searle, J., Kerr, J.F.R. and Bishop, C.J. 1982. Necrosis and apoptosis: distinct modes of cell deaths with fundamentally different significance. *Pathol. Ann*. 17:229-259.

Sharanabasappa, A., Vijayakumar, B and Saraswati, B.P. 2002. Effect of *Momordica charantina* seed extracts on ovarian and uterine activities in albino rats. *J. Pharm. Biol.* 40 (7):501-507.

Sharara, F.I., Seifer, D.B. and Flaws, J.A. 1998. Environmental toxicants and female reproduction. *Fertil. and Steril.* 70 (4):613-622.

Sharma, J.D., Sharma, L., and Yadav, P. 2007. Antifertility efficacy of Piper betle Linn (Petiole) on female albino rats. Asian. *J. Exp. Sci*. 21: 145-150.

Shyamala, B. and Salma, K. 2001. Effect of alcoholic extract of Ananas, Bamboosa, and Phoenix on oestrous cycle of female albino rats. *Indian. J. Nat. Prod.* 17: 43-46.

Silberstein, S.D. and Merriam, G.R. 2000. Physiology of the menstrual cycle. *Cephalalgia*. 20: 148-154.

Silva-Santos, K.C., Santos, G.M.G., Siloto, L.S., Hertel, M.F., Andrade, E.R., Rubin, M.I.B., Sturion, L., Melo-Sterza, F.A. and Seneda, M.M. 2011. Estimate of the population of *preantral* follicles in the ovaries of *Bos taurus indicus* and *Bos taurus taurus* cattle. *Theriogenol*. 76: 1051-1057.

Singh, S.K. and Chakravarty, S. 2003. Antispermatogenic and antifertility effects of 20,25-diazacholesterol dihydrochloride in mice. *Reprod. Toxicol*. 17: 37-44.

Singla, L.D., Singla, N., Parshad, V.R., Juyal, P.D., and Sood, N.K., 2008. Rodent as reservoir of parasites in India. *Integrat. Zool*. 3:21-26.

Singleton, G.R. 1997. Integrated management of rodents: A Southeast Asian and Australian perspective. *Belg. J. Zool* 127:157-169.

Singleton, G.R., Sudarmaji and Suryapermana, S. 1997. An Experimental field study to evaluate a trap barrier system and fumigation for kontrolling the rice-field rat, *Rattus argentiventer*, in rice crops in West Java. *Crop Protect*. 17(1): 55-64.

Singleton, G.R., Leirs, L., Hinds, L.A. and Zhang, Z. 1999. *Ecologically-based management of rodent pests re-evaluating our approach to an old problem.* In: Singleton, G.R., Hinds, L.A., Leirs, H., Zhang, Z. (Eds.). *Ecologically-Based Management of Rodent Pests.* Australian Centre for International Agricultural Research (ACIAR), Canberra. Pp. 17-29.

Singleton, G.R., Sudarmaji, Tuan, N.P., Huan, N.H., Brown, P.R., Jacob, J., Heong, K.L. and Escalada, M.M. 2003. Reduction in chemical use following integrated ecologically-based rodent management. *International Rice Research Notes* 28 (2):33-35.

Skinner, M.K., 2005. Regulation of *primordial* follicle assembly and development. *Hum. Reprod. Update*. 11 (5): 461-471.

Slamon, D.J., Godolphin, W. and Jones, L.A. 1989. Studies of the HER-2/neu proto-oncogene in human breast and ovarian cancer. *Sci*. 244: 707-712.

Smith, B.J., Mattison, D.R., and Sipes, I.G., 1990. The role of epoxidation in 4-vinylcyclohexene diepoxide-induced ovarian toxicity. *Toxicol. Appl. Pharmacol.* 105: 372-381.

Smith, B.J. and Sipes, I.G. 1991. Epoxidation of 4-vinylcyclohexene by human hepatic microsomes. *Toxciol. Appl. Pharmacol.* 109: 367-371.

Snape, M., Hinds, L. and Miller, L. 2011. *Administration of the GnRH-targeted immunocontraceptive GonaCon^{TM} to the tammar wallaby, Macropus eugenii: side effects and welfare implications*. In: Jacob, J. and Esther, A. (Eds.): 8th European Vertebrate Pest Management Conference. Julius Kuhn Institute, Berlin, Germany. P. 114.

Southwick, C.H. 1969. Reproduction, growth and mortality of murid rodent populations. In: *Indian Rodent Symposium*. Pp. 152-176.

Spears, N., Boland, N.I., Murray, A.A. and Gosden, R.G. 1994. Mouse oocytes derived fron *in vitro* grown primary ovarian follicles are fertile. *Hum Reprod*. 9: 527-532.

Springer, L.N., Flaws, J.A., Sipes, I.G., and Hoyer, P.B. 1996a. Follicular mechanisms associated with 4-Vinyl Cyclohexene Diepoxide-induced ovotoxicity in rats. *Reprod. Toxicol*. 10:137-143.

Springer, L.N., Tilly, J.L., Sipes, I.G., and Hoyer, P.B. 1996b. Enhanced expression of bax in small *preantral* follicles during 4-Vinyl Cyclohexene Diepoxide-induced ovotoxicity in the rat. *Toxicol. Appl. Pharmacol*. 139:402-410.

Springer, L.N., McAssey, M., Flaws, J.A., Tilly, J.L., Sipes, I.G., and Hoyer, P.B. 1996c. Involvement of apoptosis in 4-Vinyl Cyclohexene Diepoxide-induced ovotoxicity in rats. *Toxicol. Appl. Pharmacol*. 139:394-401.

Stefansdottir, A., Fowler, P.A., Powles-Glover, N., Anderson, R.A.and Spears, N. 2014. Use of ovary culture techniques in reproductive toxicology. *Reprod. Toxicol*. 49: 117-135.

Stocco, C., Telleria, C. and Gibori, G. 2007. The molecular control of corpus luteum formation, function, and regression. *Endocr. Rev*. 28: 117-149.

Sudarmaji, Rahmini, N.A. Herawati dan A.W. Anggara. 2005. Perubahan musiman kerapatan populasi tikus sawah *Rattus argentiventer* di

ekosistem sawah irigasi. *Jurnal Penelitian Pertanian Tanaman pangan.* 24 (5): 119-125.

Sudarmaji, Jacob, J., Subagja, J., Mangoendihardjo, dan Djohan, T.S. 2007. Karakteristik perkembangbiakan tikus sawah irigasi dan implikasinya untuk pengendalian. *Jurnal Penelitian Pertanian Tanaman Pangan.* 26 (2): 93-99.

Sudarmaji dan Rochman. 1997. Populasi tikus *Rattus argentiventer* di berbagai tipe habitat ekosistem padi sawah. *Prosiding III Seminar Nasional Biologi XV*. PBI Cabang Lampung dan UNILA, Hal.1069-1073.

Sudarmaji, 2004. Dinamika populasi tikus sawah *Rattus argentiventer* (Rob & Kloss) pada ekosistem sawah irigasi teknis dengan pola tanam padi-padi-bera. Naskah disertasi. Program studi Biologi, Fakultas Biologi, Sekolah Pasca Sarjana, Universitas Gadjah Mada, Yogyakarta.

Sudarmaji dan N. A. Herawati, 2008. *Ekologi tikus sawah dan teknologi pengendaliannya.* Dalam: Daradjat, A.A., Setyono, A., Makarim, A.K., dan Hasanuddin, A. (eds). 2009. *Padi inovasi teknologi produksi* (Buku 2). Badan Litbang Deptan. Sukamandi : BB Padi (Balai Besar Penelitian Tanaman Padi). Pp : 295-322.

Sun, F., Betzendahl, I., Shen, Y., Cortvrindt, R., Smithz, J. and Eichenlaub-Ritter, U. 2004. *Preantral* follicle culture as a novel *in vitro* assay in reproductive toxicology testing in mammalian oocytes. *Mutagenesis*. 19 (1): 13-25.

Sutyarso, 1992. Pengaruh pemberian ekstrak buah pare (*Momordica charantina*, L.) terhadap fertilitas mencit jantan *Mus musculus* L. Strain LMR. Thesis Fakultas Pasca Sarjana Universitas Indonesia, Bidang Ilmu Kedokteran Dasar. Jakarta.

Takai, R., Hayashi, S., Kiyokawa, J., Iwata, Y., Matsuo, S., Suzuki, M., Mizoguchi, K., Chiba, S. and Deki, T. 2009. Collaborative work on evaluation of ovarian toxicity 10) Two- or –four week repeated dose studies and fertility study of di-(2-ethylhexyl phthalate (DEHP) in female rats. *J. Toxicol. Sci*. 34 (I): SP111-SP119.

Telfer, E.E., McLaughlin, M., Ding, C. and Thong, K.J. 2008. A two-step serum-free culture system supports development of human oocytes from *primordial* follicles in the presence of activin. *Hum. Reprod*. 23: 1151-1158.

Thompson, K.E., Bourguet, S.M., Christian, P.J., Benedict, J.C., Sipes, I.G., Flaws, J.A. and Hoyer, P.B. 2005. Differences between rats and mice

in the involvement of the aryl hydrocarbon receptor in 4-vinylcyclohexene diepoxide-induced ovarian follicle loss. *Toxicol. Appl. Pharmacol*. 203: 114-123.

Tilly, J.L., Kowalski, K.I., Johnson, A.L., and Hsueh, A.J.W. 1991. Involvement of apoptosis in ovarian follicular atresia and postovulatory regression. *Endocrinol.* 129:2799-2801.

Townson, D.H. and Combelles, C.M.H. 2012. Ovarian follicular atresia. In: Darwish, A. (eds.). *Basic gynecology*. InTech Europe. Rijeka, Croatia. Pp.42-76.

Tran, T.T. and Hinds, L.A. 2013. Fertility control of rodents pests: a review of the inhibitory effects of plant extracts on ovarian function. *Pest Manag. Sci*. 69: 342-354.

Tristiani, H., and Murakami, O. 1998. The reproduction and survival of the ricefield rat, *Rattus argentiventer*, on the rice plants diet. *Belg. J. Zool*. 128:199-207.

Tristiani, H., Murakami, O., and Kuno, E. 2000. Rice plant damage distribution and home range distribution of the ricefield rat *Rattus argentiventer* (Rodentia: Muridae). *Belg. J. Zool*. 130:83-91.

Tirstiani, H., and Murakami, O. 2003. Rates of population increase in the ricefield rat (*Rattus argentiventer*) as a function of food supply: an *enclosure* study in Jatisari, West Java. *J. Zool. Lond*. 259:239-244.

Turner, P.V., Vaughn, E., Sunohara-Neilson, J., Ovari, J. and Leri, F. 2012. Oral gavage in rats: animal welfare evaluation. *J. Am. Associat. Lab. Anim. Sci.* 51 (1): 25-30.

Urbanski, H.F. and Ojeda, S.R. 1985. The juvenile-peripubertal transition period in the female rat: establishment of a diurnal pattern of pulsatile luteinizing hormone secretion. *Endocrinol.* 117:644-649.

Vandenberg, L. N., Welshons, W.V., von Saal., F.S., Toutain, P.L., and Myers, J.P. 2014. Should oral gavage be abandoned in toxicity testing of endocrine disruptors? *Environm. Health*. 13 (46): 2-7.

Van Wezel, I.L. and Rodgers, R.J. 1996. Morphological characterization of bovine *primordial* follicles and their environment *in vivo*. *Biol. Reprod.* 55 (5): 1003-1011.

Verma, Y. and Rana, S.V.R. 2009. Endocrinal toxicity of industrial solvents – A mini review. Ind. J. Exp. Biol. 47: 537-549.

Vogt, M. and Dulbecco, R. (1960). Virus-cell interaction with a tumor-producing virus. *Proc. Natl. Acad. Sci. U.S.A.* 46 (3): 365–70.

Wandji, S.A., Srsen, V., Nathanielsz, P.W., Eppig, J.J. and Fortune, J.E. 1997. Initiation of growth of baboon *primordial* follicles *in vitro*. *Hum. Reprod*. 12 (9): 1993-2001.

Wardoyo, B.P.E. 1990. Pengaruh fraksi kioroform dan air buah pare terhadap spermatozoa epididimis tikus. Thesis Fakultas Pasca Sarjana UGM, Yogyakarta. Hal. 53-102.

Wassaman, P., Chen, J., Cohen, N., Litscher, E. and Liu, C. 1999. Structure and function of mammalian egg zona pellucid. *J. Exp. Zool*. 285: 251-258.

Wastergaard, C.G., A.G. Byskov and C.Y. Andersen. 2007. Morphometric characteristics of the *primordial* to primary follicle transition in the human ovary in relation to age. *Hum. Rep*. 22 (8): 2225-2231.

Weinbauer, G.F., Niehoff, M., Niehaus, M., Srivastav, S. and Fuch, A. 2005. Physiology and endocrinology of the ovarian cycle in Macaques. *Toxicol. Pathol*. 36: 7-23.

Westwood, F.R. 2008. The female rat reproductive cycle: a practical histological guide to staging. *Toxicol. Pathol.* 36: 375-384.

Wheatley, J.L. 2002. A gavage dosing apparatus with flexible catheter provides a less stressfull gavage technique in the rat. *Lab. An. Europe*. 2: 31-34.

White, J.O., Thrower, S., and Lim, L. 1978. Intracellular relationships of the oestrogen receptor in the rat uterus and hypothalamus during the oestrous cycle. *Biochem J*. 172: 37-47.

Whittingham, D.G. and Wood, M.J. 1983. Reproductive physiology, the mouse in biomedical research. Academic Press. New York. Pp. 137-164.

Winoto, I.L., Goethart, H., Ibrahim, I.N., Herlina, I.Y., Stoops, C., Susanti, I., Kania, W., Maquire, J.D., Bangs, M.J., Telford III, S.R., and Wongsrichanalai, C. 2005. Bartonella species in rodents and shrews in the greater Jakarta area. Southeast *Asian J. Trop. Med. Publ. Health*. 36. (6): 1523-1529.

Witmer, G.W. 2004. *Rodent ecology and plague in North America*. In: Proceedings of the 19th International Congress of Zoology. China Zoological Society. Beijing, China. Pp. 154-156.

Wolff, J.O. 2007. Social biology of rodents. *Integrat. Zool*. 2: 193-204.

Wright, C.S., Hovatta, O., Margara, R., Trew, G., Winston, R.M., Franks, S. and Hardy, K. 1999. Effects of follicle-stimulating hormone and serum substitution on the *in vitro* growth of human ovarian follicles. *Hum. Reprod.* 14 (6): 1555-1562.

Wyllie, A.H., Kerr, J.F.R. and Currie, A.R. 1980. Cell death: the significance of apoptosis. *Internl. Rev. Cytol*. 68:251-305.

Xu, M., West-Farrell, E., Schroeder, R.L., Shea, L.D., Woodruff, T.K., and Zelinski, M.B. 2009. Encapsulated three dimensional culture supports development of nonhuman primate secondary follicles. *Biol. Reprod.* 81: 587-594.

Yamaguchi, K., Tamura, Z. and Maeda, M. 1997. Molecular Structure of the Zwitterionic Form of Phenolsulfonphthalein. *Analyt. Sci.* 13 (3): 521–522.

Yang, Y.Q and Wu, X.Y. 1987. Antifertility mechanisms of gossypol acetic acid in female rats. *J. Reprod. Fert*. (80): 425-429.

Yang, Y. And Ma, H. 2009. Western blotting and ELISA techniques. *Res*. 1 (2): 67-86.

Yoder, C.A., Mayle, B.A., Furcolow, C.A., Cowan, D.P. and Fagerstone, K.A. 2011. Feeding of grey squirrels (*Sciurus carolinensis*) with the contraceptive agent DiazaCon$^{TM:}$ effect on cholesterol, hematology and blood chemistry. *Integrat. Zool.* 6: 409-419.

Yoshida, T., Ikemi, N., Takeuchi, Y., Ebino, K., Kojima, S., Chiba, Y., Nakashima, N., Kawakatsu, H., Saka, M. and Harada, T. 2012. A repeated dose 90-day oral toxicity study of cyflumetofen, a novel acaricide, in rats. *J. Toxicol. Sci*. 37 (1): 91-104.

Yu, N. and Roy, S.K. 1999. Development of *primordial* and prenatal follicles from undifferentiated somatic cells and oocytes in the hamster prenatal ovary *in vitro*: effect of insulin. *Biol. Reprod.* 61: 1558-1567.