# DAFTAR PUSTAKA

Achdiat, C.M. 2003. *Fitoestrogen untuk wanita menopause.* Seminar ilmiah UIN Jakarta, Jakarta.

Adlercreutz, H., Goldin, B.R., dan Gorbach, S.L. 1995. Soybean phytoestrogen intake and cancer risk. *J Nutr*. 125(2):757–770.

Afifah, E., dan Tim Lentera. 2003. *Khasiat dan Manfaat Temulawak Rimpang Penyembuh Aneka Penyakit*. Agromedia Pustaka. Jakarta.

Afriastini, J.J. 2003. *Marsilea crenata C.Presl. Di dalam: de Winter WP, Amoroso VB, editor. Cryptograms: Ferns and fern allies*. LIPI, Bogor.

Akbar, B. 2010. Tumbuhan dengan Kandungan Senyawa Aktif yang Berpotensi sebagai Bahan Antifertilitas. *Adabia Press*, Jakarta.

Akiyama, T. 1987. Genistein: a specific inhibitor of tyrosine-specific protein kinase. *J Biol Chem.* 262(3):5592–5595.

Albulescu, M., Popovici, M. 2007. *Pharmacology and therapeutic use. Rev Roum Chim*. vol. 52. 52: 537-550.

Anderson, J.J.B., Anthony, M., Messina, M., dan Garner, S.C. 1999. Effects of phytoestrogens on tissues. *Nutr Res Rev.* 12(3):75-116.

Astari, E.Y. 2008. Pengaruh Pemberian Decocta Daun Dewa Terhadap Penurunan Kadar Asam Urat Serum Pada Mencit Putih Jantan Galur Balb- C Hiperurisemia. *Skripsi.* Fakultas Farmasi Universitas Muhammadiyah Surakarta, Surakarta.

Axelson, M., dan Setchell, K.D.R. 1981. The excretion of lignans in rats Evidence for an intestinal bacterial source for this new group of compounds. *FEBS Lett.* 123(1): 337–342.

Balen, A. 2004. The Pathophysiology of Polycystic Ovary Syndrome: Trying to Understand PCOS and Its Endocrionolgy. *Best Practice & Research Clinical Obstetrics & Gynaecology.* 18(5): 685-706.

Bames, S., Kirk, M., dan Coward L. 1994. Isoflavones and their conjugates in soy foods: extraction conditions an analysis by hplc-mass spectrometry. *J Agric Food Chem.* 42(4): 66-74.

Barbosa, G., Cunha de Sa, L.B.P., Rocha, D.R.T.W., dan Arbex, A.K. 2016. Polycystic Ovary Syndrome (PCOS) and Fertility. *Open Journal of Endocrine and Metabolic Diseases.* 6(1): 58-65.

Besselsen, D.G. 2004. *Biology of Laboratory Rodent.* Medical Books. New York, USA.

Biben, H.A. 2012. *Fitoestrogen: Khasiat Terhadap Sistem Reproduksi, Non Reproduksi dan keamanan penggunaanya, Estrogen sebagai sumber hormone alami.* Seminar ilmiah.

Bingham, S.A., Atkinson, C., Liggins, J., Bluck, L., dan Coward, A. 1998. Phytoestrogens: where are we now. *Journal Nutrition.* 79(3): 393-406.

Borș, S. I., Ibănescu, I., Creangă, Ș., dan Borș, A. 2018. Reproductive performance in dairy cows with cystic ovarian disease after single treatment with buserelin acetate or dinoprost. *The Journal of veterinary medical science*, *80* (7), 1190–1194.

BPOM. 2008. *Informatorium Obat Nasional Indonesia, Badan Pengawas Obat dan Makanan Republik Indonesia*, Jakarta.

Brown, N.M., dan Setchell, K.D.R. 2001. Animal models impated by phytoestrogens in commercial chow: implications for pathways influenced by hormons. *Lab Invest.* 8(1): 735-747.

Carmina, E. 2003. Genetic and environmental aspect of polycystic ovary syndrome. *Journal of Endocrinological Investigation*. Vol 26(11):1151–1159.

Cattaneo L, Signorini ML, Bertoli J. 2014. Epidemiological description of cystic ovarian disease in argentine dairy herds: risk factors and effects on the reproductive performance of lactating cows. *Reprod Domest Anim*. 2014;49(6):1028-1033.

Cedars, M., dan Jaffe, R.B. 2009. Infertility and Women. *The Journal of Clinical Endocrinology & Metabolism.* 90(4).

Champion, P.D., dan Clayton, J.S. 2001. *Border control for potential aquatic weeds*. Departemen Conversation, New Zealand.

Clause, B.T. 1993. The Wistar rat as a right choice: Establishing mammalian standards and the ideal of a standardized mammal. *J Hist Biol.* 2(6): 329–349

Cunningham, B. 2008. *Williams Gynecology*. McGraw-Hill Co. Inc, USA.

Davis, J. N., Kucuk, O., Djuric Z., Sarkar, F. H. 2001. Soy isoflavone supplementation in healthy men prevents NF-κB activation by TNF-α in blood lymphocytes. *Free Radical Biology & Medicine*. Vol 30(11):1293–1302.

Departemen Kesehatan Republik Indonesia. 2011. *Pedoman Pengendalian Tikus*. http://www.depkes.go.id/downloads/Pengendalian%20Tikus.pdf. (12 Juni 2020).

Dickerson, S.M., dan Gore, A.C. 2007. Estrogenic environmental endocrine-disrupting chemical effect on reproductive neuroendocrine function and dysfunction across the life scycle. Rev Endocrine Metab Disord. 8(2): 143-159.

Dunaif, A. 1997. Insulin resistance and the polycystic ovary syndrome: Mechanism and implications for pathogenesis. *Endocrine Reviews*.

El-Sharkawy, A. A., Abdelmotaleb, G. S.,Aly, M. K., dan Kabel, A. M. 2014. Effect of metformin on sleep disorders in adolescent girls with polycystic ovarian syndrome. *Journal of pediatric and adolescent gynecology*, Vol 27(6), 347-352.

Elraiyah, T., Sonbol, M.B., Wang, Z. 2014. Clinical review: The benefits and harms of systemic testosterone therapy in postmenopausal women with normal adrenal function: a systematic review and meta-analysis. *Journal of Clinical Endocrinology and Metabolism.* 99(10): 3543-50

Fox, J. G., B. J. Cohen., dan F. M. Leow. 1984. *Laboratory Animal Medicine*. Academic Press. San Diego, California.

Ganong, W.F. 1999. *Buku Ajar Fisiologi Kedokteran. Edisi 17.* EGC, Jakarta.

Ganong, W.F. 2003. *Review of Medical Physiology 21st Edition*. San Fransisco: McGraw Hill Book.

Ganong, W.F. 2005. *Review of Medical Physiology 22nd Edition.* San Fransisco: McGraw Hill Book.

Gerrits, M., Oppen, P., Leone, S.S., Marwijk, H.W., Horst, H.E., dan Penninx, B.W. 2012. Pain, chronic disease, is associated with the recurrence anxiety and stress. *BMC Psychiatry.* 1(4): 1-87.

Glover, A., dan Assinder, S.J. 2006. Acute exposure of adult male rats to dietary phytoestrogen reduces fecundity and alters epididymal steroid hormone receptor expression. *Journal Endocrine.* 3(181): 565-573

Gultekin, E., dan Yildiz, F. 2006. *Introduction to Phytoestrogen in Functional Foods*. CRC Press, USA.

Hakim, C., Padmanabhan, V., dan Vyas, A. K. 2017. Gestational Hyperandrogenism in Developmental Programming. *Endocrinology*, *158*(2), 199–212.

Harborne, J.B. 2006. Metode Fitokimia: Penuntun Cara Modern Menganalisis Tumbuhan (alih bahasa: Kosasih Padmawinata & Iwang Soediro). Penerbit ITB, Bandung.

Hardie, A. R. dan R. L. Ax. 1981. A 40-year Survey of Cystic Ovaries in Dairy Cows. *J. Dairy Sci*. 64:149.

Heinrich, M., Barnes, J., Gibbons, S., dan Williamson, E.M. 2010. *Farmakognosi dan Fitoterapi*. Penerbit Buku Kedokteran, Jakarta.

Hernandez-Montes, E., Pollard, S. E., Vauzour, D., Jofre-Montseny, L., Rota, C., Rimbach, G., Weinberg, P. D., Spencer, J. P. E. 2006. Activation of glutathione peroxidase via Nrf1 mediates genistein's protection against oxidative endothelial cell injury. *Biochemical and Biophysical Research Communications*. Vol 346 (3):851–859.

Hernawati. 2009. Potensi Buah Pare (*Momordicha charantia L.*) sebagai Herbal Antiinflamasi. Jurusan Pendidikan Biologi, Universitas Pendidikan Indonesia

Hiller, S. G. 1995. *Ovarian Endocrinology*. London: Blackwell Publishing.

Holttum, R.E. 1930. *Fern of Malaya.* Government Printing Office, Singapura.

Hughes, C.L., Liu, G., Beall, S., Foster, W.G., dan Davise, V. 2004. Effects of genistein or soymilk during late gestation and lactation on adult uterine organization in the rat. *Exp Biol Med*. 22(9):108–117.

Hussein, B., dan Alalaf, S. 2013. Prevalence and characteristics of polycystic ovarian syndrome in a sample of infertile Kurdish women attending IVF infertility center in maternity teaching hospital of Erbil City. *Open Journal of Obstetrics and Gynecology*. 3(2): 577-585.

Hutagalung, H. 2004. Karbohidrat. Fakultas Kedokteran Universitas Sumatera Utara, Sumatera Utara.

Indraswari, A. 2008. Optimasi Pembuatan Ekstrak daun Dewandaru *(Eugenia uniflora L)* mengggunakan Metode Maserasi dengan Parameter Kadar Total Senyawa

Fenolik dan Flavonoid. *Skripsi.* Universitas Muhamadiyah Surakarta, Surakarta.

Jacoeb, A.M., Nurjanah, A.M., Sulistiono, W., dan Kristiono, S.S. 2010. Deskripsi histologis dan perubahan komposisi kimia daun dan tangkai semanggi (*Marsilea crenata* Presl., Marsilaceae) akibat perebusan. *Jurnal Pengolahan Hasil Perikanan Indonesia.* 3(13): 81-95.

Jaya, Ara Miko. 2010. Isolasi dan uji efektivitas antibakteri senyawa saponin dari akar putri malu *(Mimosa pudica)* [skripsi]. Jurusan Kimia Fakultas Sains dan Teknologi Universitas Islam Negeri (UIN) Maulana Malik Ibrahim, Malang.

Jefferson, W.N., Padilla-Banks, E. Clark, G., dan Newbold, R.R. 2002. Assesing estrogenic activity pf phytochemicals using transcriptional activation and immature mouse uterotrophic responses. *Journal of Chromatography. B Analytical Technologies in the Biomedical and Life Sciences.* 777(1): 179-189.

Joham, A.E., Teede, H.J., dan Ranasinha, S. 2015. Prevalence of Infertility and Use of Fertility Treatment in Women with Polycystic Ovary Syndrome: Data from A Large Community-based Cohort Study. *Journal Womens Health (Larchmt).* 24(4): 299-307.

Jonhson, M. H., dan Everitt, B. J. 1988. *Essential Reproduction Third Edition.* London: Blackwell Publishing.

Kabel, A.M. 2016. Polycystic Ovarian Syndrome: Insights into Pathogenesis, Diagnosis, Prognosis, Pharmacological and Non-Pharmacological Treatment. *Journal Pharma Reports.* 1:103.

Kafali, H., Iriadam, M., Ozardali, I., Demir, N. 2004. Letrozole-induced polycystic ovaries in the rat: A new model for cystic ovarian disease. *Archives of Medical Research*. Vol 35(2):103–108.

Kasolo, J.N., Bimeya, G.S., Ojok, L., Ochieng, J., dan Ogwal-okeng, J.W. 2010. Phytochemicals and Uses of *Moringa oleifera* Leaves in Ugandal rural Communities. *Journal of Medical Plant Research.* 4(9):753-757.

Kaufman, J.M., dan Vermeulen, A. 2005. The Decline of Androgen Levels in Elderly Men and Its Clinical and Therapeutic Implications. *Endocr Rev*. 26(6): 833–876.

Kim, H., Peterson, T.G., dan Barnes, S. 1998. Mechanisms of action of the soy isoflavone genistein: emerging role for its effects via transforming growth factor b signaling pathways. *Journal Clinical Nutrition.* 6(8):1418–1425.

Kohn, F.D., dan S.W. Barthold. 1984. *Biology and Disease of Rat Laboratory Animal Medicine.* Academic Press Inc. New York, USA.

Koswara, S. 2006. Isoflavon: Senyawa Multi Manfaat dalam Kedelai. Institut pertanian Bogor, Bogor.

Krinke, G.J. 2000. *The Laboratory Rat. Chapter 13: Gross Anatomy.* Academic Press. New York dan London.

Kristiono, S.S. 2009. Analisis Mikroskopis dan Fitokimia Semanggi Air Marsilea crenata Presl (Marsileaceae). *Scientific Journals of Bogor Agricultural University*. 5 (1): 1-9.

Kuiper, G.G., J.G. Lemmen, B. Carlsson, J.C. Corton, S.H. Safe, P.T. van der Saag, B. van der Burg, dan J.A. Gustafsson. 1998. Interaction of estrogenic chemicals and phytoestrogens with estrogen receptor beta. *Endocrinology*. 13(9): 4252-4263.

Lenny, S. 2006. Senyawa flavonoida, fenilpropanoida dan alkaloida. Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Sumatera Utara, Medan.

Liu, E. dan Fan, J. 2018. *Fundamentals of Laboratory Animal Science*. Boca Raton: CRC Press. 138-140

Lõw, P., Molnár, K., Kriska, G. 2016. *Atlas of Animal Anatomy dan Histology*. Switzerland: Springer International Publishing. 375

Lüttgenau, J., Kögel, T., Bollwein, H. Effects of GnRH or PGF2α in week 5 postpartum on the incidence of cystic ovarian follicles and persistent corpora lutea and on fertility parameters in dairy cows. *Theriogenology*. 2016;85(5):904-913

Magoffin, D. A. 2006. Ovarian Steroidogenic Abnormalities in the Polycystic Ovary Syndrome *Androgen Excess Disorders in Women.* Springer, USA.

Malole, M.B.M., dan Pramono, C.S.U., 1989. *Penggunaan Hewan-hewan Percobaan di Laboratorium.* PAU Pangan dan Gizi, IPB, Bogor.

Marjoni, R.2016. *Dasar-Dasar Fitokimia Untuk Diploma III Farmasi*. Trans Info Media, Jakarta.

Marquez, R.S., H. Hernandez, J.A. Flores, G. Munoz, M. Gerardo, G. Duarte, J. Vielma, dan J.A. Delgadillo. 2015. Effects of phytoestrogens on mammalian reproductive physiology. *Trop Subtrop Agroecosys.* 15(1): 129-145.

Marshall, K. 2001. Polycystic ovary syndrome: clinical considerations. *Alternative Medicine Review*, 6(3), 272-272.

Mascarenhas, M.N., Flaxman, S.R., dan Boerma, T. 2012. *The reproductive system. In human anatomy 7th edition*. Person education Inc, USA.

Mirahmadi,S.M., Shahmohammadi, A., Rousta, A.M., Azadi, M.R., Fahanik-Babaei J., Baluchnejadmojarad, T., Roghani, M. 2018. Soy isoflavone genistein attenuates lipopolysaccharide-induced cognitive impairments in the rat via exerting anti-oxidative and anti-inflammatory effects. *Cytokine*.104:151–159.

Mohamed-Hussein, Z.A., dan Harun, S. 2009.Construction of a polycystic ovarian syndrome (PCOS) pathway based on the interactions of PCOS-related proteins retrieved from bibliomic data. *Theor Biol Med Model*, 6(1):18

Moll, E., Veen, F., Wely, M. 2007. The role of metformin in polycystic ovary syndrome: A systematic review. *Human Reproduction Update*. 1(3): 527-37.

Moriwaki, K, T. Shiroishi, dan H. Yonekawa. 1994. Genetic in Wild Mice. Its Aplication to Biomedical Research. *Japan Scientific Sosieties Press.* Karger, Tokyo.

Mitchell, J. H., E. Cawood, D. Kinniburgh, A. Provan, A.R. Collins, dan D.S. Irvine. 2001. Effect of a phytoestrogen food supplement on reproductive health in normal males. *Clinical Science.* 100(6): 613-618.

Mukherjee, S., dan Maitra, A. 2010. Molecular & genetic factors contributing to insulin resistance in polycystic ovary syndrome. *Alternative Medicine Review*, Vol 6 (3), 213-238.

Murkies, A.L., Wilcox, G., dan Davis, S.R. 1998. Phytoestrogens. *Journal Clinical Endocrinol Metab.* 2(1): 297-303.

Murray, R. K., Bender, D. A., Botham, K. M., Kennely, P. J., Rodwell, V. W., and Weil, P. A. 2009. *Harper's Biochemistry 28th Edition*. New York: The McGraw-Hill Companies, Inc.

Nadesul, H. 2008. *Cara Sehat Menjadi Perempuan*. Kompas Media Nusantara, Jakarta.

Nafye, Y., Sevtap, K, Muammer, D., Emre, O., dan Senol, K. 2010. The Effect of Serum and Intrafollicular Insulin Resistance Parameters and Homocysteine

Levels of Nonobese, Nonhyperandrogenemic Polycystic Ovary Syndrome Patients on In-vitro Fertilization Outcome. *Fertil Steril.* 9(3): 1864-1869.

Novarro, M.C. 2005. Mecanismo de ación de las isoflavonas. *Ginelogía y Obstetricia Clínica.* 6(2): 159-165.

O'Rourke, T.K., Jr., dan Wosnitzer, M.S. 2016. Opioid-Induced Androgen Deficiency (OPIAD): Diagnosis, Management, and Literature Review. *Current Urology Reports.* 17(10): 76

Orwoll, E., Lambert, L.C., Marshall, L.M., Phipps, K., Blank, J., Barrett-Connor, E., Cauley, J., Ensrud, K., dan Cummings, S. 2006. Testosterone and estradiol among older men. *Journal of Clinical Endocrinology and Metabolism*. 91(4): 1336-44

Pandey, P.V., Bodhi, W., dan Yudistira, A. 2013. Uji efek analgetik rumput teki (*Cyperus rotundus* L.) pada tikus putih jantan galur wistar (*Rattus novergicus)*. *Jurnal Ilmiah Farmasi Universitas Sam Ratulangi.* 2(2): 2303-2493.

Patisaul, H. B., dan Jefferson, W. 2010. *The Pros and Cons of phytoestrogens.* NIH Public

Phillips, K.P., dan Tanphaichitr, N. 2008. Human exposure to endocrine disrupters and semen quality. *Journal Toxicol Environ Health B Crit Rev.* 1(1): 188-220.

Pradana, S. 2009. Prospek dan Manfaat Isoflavon sebagai Fitoestrogen Bagi Kesehatan. *Jurnal Pertanian.* 3(1): 1-17

Pratt, C.W., dan Cornely, K. 2013. Essential Biochemistry 3rd edition. Wiley publishing, United Kingdom.

Prawiroharsono S. 2007. *Prospek dan Pemanfaatan Isovlafon untuk Kesehatan.* Direktorat Teknologi Biondrusti, Badan Pengkajian dan Penerapan Pangan.

Priyambodo. 1995. *Pengendalian Hama Tikus Terpadu.* Penebar Swadaya. Jakarta.

Qoubaitary, A., Meriggiola, C., dan Ng, C.M. 2006. Pharmacokinetics of testosterone undecanoate injected alone or in combination with norethisterone enanthate in healthy men. *Journal of Andrology.* 27(6): 853-67

Rimbach, G., De Pascual-Teresa, S., Ewins, B. A., Matsugo, S., Uchida, Y., Minihane, A. M., Turner, R., Vafeiadou, K., Weinberg, P. D. 2003. Antioxidant and free radical scavenging activity of isoflavone metabolites. *Xenobiotica*. Vol 33(9):913–925.

Rishi, R.K. 2002. Phytoestrogens in health and illness. *Journal Pharmacol.* 3(4): 311-320.

Rojas, J., Chavez, M., Olivar, L., Rojas, M., Morillo, J., Mejias, J., Calvo, M., dan Bermudez, V. 2014. Polycystic Ovary Syndrome, Insulin Resistance, and Obesity: Navigating the Pathophysiologic Labyrinth. *International Journal of Reproductive Medicine.* 20(7): 265–275

Romualdi, D., Costantini, B., Campagna G., Lanzone A., Guido M. 2008. Is there a role for soy isoflavones in the therapeutic approach to polycystic ovary syndrome Results from a pilot study. *Fertility and Sterility*. Vol 90(5):1826–1833.Robinson, K.L, dan Tomek, W.G. 1972. *Agricultural Product Prices.* Printing Cornwell University Pres 3rd, USA. Rosenfield, R. L., dan Ehrmann, D. A. 2016. The Pathogenesis of Polycystic Ovary Syndrome (PCOS): The Hypothesis of PCOS as Functional Ovarian Hyperandrogenism Revisited. *Endocrine reviews*, *37*(5), 467–520.

Sa'adah, L. 2010. Isolasi dan Identifikasi SenyawaTanindari Daun Belimbing Wuluh (Averrhoa bilimbi L). *Skipsi.* Universitas Islam Negeri (UIN) Maulana Malik Ibrahim Malang, Malang.

Santoso, H., dan Ismail, A. 2009. *Memahami Krisis Lanjut Usia: Uraian Medis dan Pedagogis-Pastoral*. Gunung Mulia, Jakarta.

Setchell, K.D.R., Borrieio, S.F., Hulme, P., Kirk, D.N., dan Axelson, M. 1984. Non-steroidal estrogens of dietary origin: possible roles in hormon dependent disease. *Journal Clinical Nutrition.* 40(2): 569 –578.

Setchell, K.D.R. 1998. Phytoestrogens: The Biochemistry, Physiology, and Implications for Human Health of Soy Isoflavones. *Journal Clinical Nutrition.* 6(8): 1333-1346.

Sharquie, K.E., Al-Bayatti, A.A., AlAjeel, A.I., Al-Bahar, A.J., dan AlNuaimy, A.A. 2007. Free Testosterone, Luteinizing Hormone/Follicle Stimulating Hormone Ratio and Pelvic Sonography in Relation to Skin Manifestations in Patients with Polycystic Ovary Syndrome. *Saudi Med J*. 28(1): 1039-1043.

Sirmans, S.M., dan Pate, K.A. 2014. Epidemiology, Diagnosis, and Management of Polycystic Ovary Syndrome. *Clinical Epidemiology*. 6(2): 1-13.

Sirois M. 2005. *Laboratory animal medicine: Principles and procedures*. Mosby Inc, USA.

Smith, J.B. dan S. Mangkoewidjojo. 1988. Pemeliharaan, Pembiakan Dan Penggunaan Hewan Percobaan Di Daerah Tropis. *UI Press*, Jakarta.

Speroff, L., dan Fritz, M.A. 2011. *Cronic anovulation and the polycystic ovarysyndrome. In: Clinical gynecoligic endocrinology and infertility.7th Edition*. Philadelphia.

Suttie, A.W. 2017. *Boorman's Pathology of the Rats: Reference and Atlas 2nd edition*. Academic press, USA.

Tebble, J.E., O'Donnell, M.J., Dobson, H. 2001.Ultrasound diagnosis and treatment outcome of cystic ovaries in cattle. *Vet Rec* ,148(13):411-413.

Tena, G., Moran, C., Romero, R., Moran, S. 2011. Ovarian morphology and endocrine function in polycystic ovary syndrome. *Archives of Gynecology and Obstetrics*. Vol 284(6):1443–1448.

Toelihere, M.R. 1985. Fisiologi Reproduksi pada Ternak. Angkasa, Bandung.

Treuting, P.M., Dintzis, S.M., Montine, K.S. 2018. *Comparative Anatomy and Histology a Mouse, Rat, and Human Atlas*. London: Elsevier Academic Press

Umstot, E.S., Baxter, J.E., dan Andersen, R.N. 1985. A theoretically sound and practicable equilibrium dialysis method for measuring percentage of free testosterone. *Journal of Steroid Biochemistry*. 22(5): 639-48

Vanderschueren, D., Laurent, M.R., Claessens, F., Gielen, E., Lagerquist, M.K., Vandenput, L., Börjesson, A.E., dan Ohlsson, C. 2014. Sex steroid Actions in Male Bone. *Endocr Rev*. 35(6):906–960.

Weber, K. S., Setchell, K. D. R., Stocco, D. M., Lephart, E. D. 2001. Dietary soy-phytoestrogens decrease testosterone levels and prostate weight without altering LH, prostate 5α-reductase or testicular steroidogenic acute regulatory peptide levels in adult male Sprague-Dawley rats. *Journal of Endocrinology*. Vol 170(3):591–599.

Whitten, P.L., dan Patisaul, H.B. 2001. Cross-species and interassay comparison of phytoestrogen action. *J Environ Health Perspect.* 10(9): 5-20.

Wiltbank, M.C., Gumen, A., dan Sartori, R. 2002. Physiological classification of anovulatory conditions in cattle. *Theriogenology*. 57. 21-52.

Xu, L., Freeman, G., Cowling, B.J., dan Schooling, C.M. 2013. Testosterone therapy and cardiovascular events among men: a systematic review and meta-analysis of placebo-controlled randomized trials. *BMC Med*. 11: 108

Yanan, L.I., Yan, L.I., Ernest, H.Y., Elisabet, S.V., Taixiang, W., Fengjuan, H., dan Xiaoke, W. 2011. Polycystic ovary syndrome is associated with negatively variable impacts on domains of health-related quality of life: evidence from a meta-analysis. *International Journal of Fertility and Sterility*. 96(2): 452-458.

Yildiz, O., Doi, M., Yujnovsky, I., Cardone, L., Berndt, A., Hennig, S., Schulze, S., Urbanke, C., Sassone-Corsi, P., dan Wolf, E. 2005. Crystal structure and interactions of the PAS repeat region of the Drosophila clock protein periode. *Mol. Cell.* 17(1): 69--82.

Yoon, K., Kwack, S. J., Kim, H. S., Lee, B.-M. 2014. Estrogenic endocrine-disrupting chemicals: molecular mechanisms of actions on putative human diseases. *Journal of Toxicology and Environmental Health. Part B: Critical Reviews*. Vol 17(1)(3):127–174.

Zegers, F., Adamson, G.D., Mouzon, J.D., Ishibara, O., Monsour, R., dan Nygren, K. 2009. International comitee for monitoring assisted reproductive technology (ICMART) and the world health organization (WHO) revised glossary of ART terminology. *Fertility and Sterility*. 92(5): 1520-1524.

Zhou, R., Bird, I.M., Dumesic, D.A., dan Abbott, D.H. 2005. Adrenal hyperandrogenism is induced by fetal androgen excess in a rhesus monkey model of polycystic ovary syndrome. *J Clin Endocrinol Metab*. 90(12):6630-6637.

Zhuang, X.-L., Fu, Y.-C., Xu, J.-J., Kong, X.-X., Chen, Z.-G., Luo, L.-L. 2010. Effects of genistein on ovarian follicular development and ovarian life span in rats. *Fitoterapia*. Vol 81(8):998–1002.

Zhu, J. ling., Chen, Z., Feng, W. jie., Long, S., lian, dan Mo, Z. C. 2019. Sex hormone-binding globulin and polycystic ovary syndrome. *Clinica Chimica Acta*. Elsevier B.V.