BIBLIOGRAPHY

BIBLIOGRAPHY

Albert, A. 1961. The mammalian testis. In: *Sex and Internal Secretions* (W.C. Young, ed.), Vol.1., Williams & Wilkins, Baltimore, Maryland, pp. 305.

Amin, S.O. and El-Sheikh, A.S. 1977. Pituitary-testicular function in hypothyroid male rats. *Acta. Anat.* (Basel), **98**: 121-129.

Antony, F.F., Aruldhas, M.M., Udhayakumar, R.C.R., Maran, R.R.M. and Govindrajulu, P. 1995. Inhibition of Leyding cell activity*in vitro* in hypothyroid rats. *J. Endocrinol.*, **144**: 293-300.

Arendt, J. 1988. Melatonin. *Clin. Endocrinol.*, **29**: 205-229.

Ariens Kappers, J. 1980. Evolution of pineal concepts. In: *The Pineal Organ. Photobiology Biochronometry - Endocrinology*, (A, Oksche and P. Pévet, eds.) Elsevier, Amsterdam, pp. 3-23.

Aruldhas, M.M., Valivullah, H.M. and Govindarajulu, P. 1982a. Specific effect of the thyroid on testicular enzymes involved in carbohydrate metabolism. I. Hypothyroidism. *Int. J. Androl.*, **5**: 196-204.

Aruldhas, M.M., Valivullah, H.M. and Govindarajulu, P. 1982b. Specific effect of thyroid hormone on testicular enzymes involved in carbohydrate metabolism. II. Hyperthyroidism. *Biochim. Biophys. Acta.*, **715**: 121-125.

Aruldhas, M.M., Valivullah, H.M. and Govindarajulu, P. 1983. Effect of thyroidectomy on testicular enzymes on the pyruvate/malate cycle involved in lipogenesis. *Biochim. Biophys. Acta.*, **755**: 90-94.

Aruldhas, M.M., Valivullah, H.M. and Govindarajulu, P. 1984. Effect of thyroxine-induced hyperthyroidism on some testicular enzymes of the pyruvate/malate cycle. *Biochim. Biophys. Acta.*, **797**: 143-146.

Aruldhas, M.M., Valivullah, H.M., Srinivasan, N. and Govindarajulu, P. 1986 a. Role of thyroid on testicular lipids in prepubertal, pubertal and adult rats. I. Hyperthyroidism. *Biochim. Biophys. Acta.*, **881**: 462-469.

Aruldhas, M.M., Balasubramanian, K., Srinivasan, N. and Govindarajulu, P. 1986 b. Role of thyroid on testicular lipids in prepubertal, pubertal and adult rats. II. Hypothyroidism. *J. Reprod. Biol. Comp. Endocrinol.*, **6(1)**: 41-51.

Avallet, O., Lejeune, H., Habert, R., Skalli, M., Clark, A. and Saez, J.M. 1993. Sertoli-Leydig Cell interactions. In: *Local systems in reproduction* (R.R. Magness & F. Naftolin, eds.), Serono symposia publications from Raven Press, Vol. 96, Raven Press, New York, pp. 139-160.

Ayre, E.A. and Pang, S.F. 1994. 2-(125) Iodomelatonin binding sites in the testis and ovary: putative melatonin receptors in the gouads. *Biol. Signals.*, **3**: 71-84.

Ayyar, C.B. 1987. Adrenal-gonad relationship: A histophysiological study in feral blue rock pigeons, *Columba livia*. A Ph.D. Thesis submitted to M.S. University of Baroda, Baroda, Gujarat, India.

Baksi, S. N. 1973. Effects of propyl thiouracil-induced hypothyroidism on serum and levels of LH and FSH in the rat. *J. Endocrinol.*, **59**: 655.

Balemans, M.G.M., Bary, F.A.M., Legerstee, W.C. and Noordegraaf, E.M. 1978. Circadian rhythmicity in the methylation of 5-hydroxy-indoles and norepinephrine in the pineal gland of 10 day old rats. *J. Neural. Transm.*, **43**: 167-175.

Balough, K. 1966. Histochemical determination of 3 α-hydroxy-steroid dehydrogenase activity. *J. Histochem. Cytochem.*, **17**: 77-83.

Bargoni, N., Luzzati, A., Rinando, M.T., Rossini, L. and Strumia, E. 1961. Über die lebergly kolyse von mit schilddruse gefutterten ratten. *Hoppe. Seylers. Z Physiol. Chem.*, **326:** 65.

Barker, S.B. and Klitgaard, H.M. 1952. Metabolism of tissue excised from thyroxine-injected rats. *Am. J. Physiol.*, **170**: 81-86.

Bartlett, J.M.S., Charlton, H.M., Robinson, C.A.F. and Nieschlag, E. 1990. Pubertal development and testicular function in the male growth hormone deficient rat. *J. Endocr.*, **126**: 193-201.

Becker, K.L., Winnacker, J.L., Matthews, M.J. and Higgins, G.A. 1968. Gynecomastia and hyperthyroidism. An endocrine and histological investigation. *J. Clin. Endocr.*, **28**: 277-285.

Berthold, A.A. 1849. Transplantation der Hoden. *Arch. Anat. Physiol. Loissench. Med.*, **16**: 42.

Binkly, S.A. 1983. Circadian rhythms of pineal functions in rat. *Endocrinology,* **4(3)**: 255-269.

Blask, D.E. 1981. Potential sites of action of pineal hormones within the neuroendocrine-reproductive axis. In: *The Pineal Gland* (R.J. Reiter, ed.), Vol. II, CRC Press, Boca Raton, Florida, pp. 189-216.

Blask, D.E., Vaughan, M.K., and Reiter, R.J. 1982. Pineal peptides and Reproduction. In: *The Pineal Gland*, (R.Relkin, ed.), Elsevier Biomedical, New York, pp. 210-223.

Brammer, G.L., Morley, J.E., Geller, E., Yuurler, A. and Hershman, J.M. 1979. Hypothalamus-pituitary-thyroid axis interactions with pineal gland in the rat. *Am. J. Physiol.*, **236**: E416-E420.

Bray, G.A., and Jacobs, H.S. 1974. Thyroid activity and other Endocrine Glands. In: *Handbook of Physiology*. Chap. 24, Sec.7, Vol.3, (M.A. Greer and D.H. Solomon, eds.), American Physiological Society, Washington, D.C., pp. 413-433.

Bremner, W.J., Millar, M.R., Sharpe, R.M. and Saunders, P.T.K. 1994. Immunohistochemical localisation of androgen receptors in the rat testis: Evidence for stage-dependant expression and regulation by androgens. *Endocrinology*, **135**: 1227-1234.

Bruni, J.F., Marshall, S., Dibbet, J.A. and Meites, J. 1975. Effects of hyper and hypothyroidism on serum LH and FSH levels in intact and gonadectomized male and female rats. *Endocrinology*, **97**: 558.

Burrow, G.N. 1991. The thyroid gland and reproduction. In: *Reproductive Endocrinology,* (S.S.C. Yen, and R.B. Jaffe, eds.), edition 3, Saunders, Philadelphia, pp. 555-575.

Butenandt, A. 1931. Über die Chemische Untersuchung der Sexualhormone. *Z. Angew. Chem.*, **44:** 905.

Butenandt, A. and Harrisch, G. 1935. Ukk Testosteron-Unwandlung des Dehydro-androstedious in Androstendiol and Testosteron; ein Weg sur. *Z. Physiol. Chem.,* **237**: 89.

Cahill, G.F. Jr., Ashmore, J., Zottu, S. and Hasting, A.B. 1957. Studies on carbohydrate metabolism in rat liver slices. IX. Ionic and hormonal effects on phosphorylase and glycogen. *J. Biol. Chem.*, **224**: 237-250.

Carter, D.S. and Goldman, B.D. 1983. Antigonadal effects of timed melatonin infusion in pinealectomised male Djungarian hamsters, (*Phodopus sungirus sungorus*): Duration is the critical parameter. *Endocrinology*, **113 (4)**: 1261-1267.

Catala, M.D., Quay, W.B. and Timiras, P.S. 1988. Effects of thyroid hormone on light/dark melatonin synthesis and release by young and maturing rat pineal glands *in vitro*. *Int. J. Dev. Neuroscience*, **6(3)**: 285-288.

Cavaliere, H., Abelin, N. and Medeiros-Netoli, C. 1988. Serum levels of total testosterone and sex hormone binding globulin in hypothyroid patients and normal subjects treated with increment doses of L-T_4 or L-T_3. *J. Androl.*, **9**: 215-219.

Chan, W.Y. and Ng, T.B. 1995. Effect of hypothyroidism induced by propyl thiouracil and thiourea on male and female reproductive systems of neonatal mice. *J. Exp. Zool.*, **273**: 160-169.

Chowdhury, A.R. and Arora, U. 1984. Role of thyroid in testicular development of immature rat. *Arch. Androl.*, **12**: 49-51.

Chowdhury, A.R., Gautam, A.K. and Chatterjee, B.B. 1984. Thyroid-testis inter-relationship during the development and sexual maturity of the rat. *Arch. Androl.*, **13**: 233-239.

Clarke, J.R. 1980. Physiological problems of seasonal breeding in Eutherian animals. *Oxford Rev. Reprod. Biol.*, **2**: 244-312.

Clermont, Y. and Harvey, S.C. 1967. Effects of hormones on spermatogenesis in the rat. *Ciba Found. Colloq. Endocrinol.*, **16**: 173.

Cooke, P.S., Hess, R.A., Porcelli, J. and Meisami, E. 1991. Increased sperm production in adult rats after transient neonatal hypothyroidism. Endocrinology, **129**: 244-248.

Cooke, P.S. and Meisami, E. 1991. Early hypothyroidism in rats causes increased adult testis and reproductive organ size but does not change testosterone levels. *Endocrinology*, **129**: 237-243.

Cooke, P.S., Porcelli, J. and Hess, R.A. 1992. Induction of increased testis growth and sperm production in adult rats by neonatal administration of the goitrogen prophyl thiouracil (PTU): The critical period. *Biol. Reprod.*, **46**: 146-154.

Cooke, P.S., Kirby, J.D. and Porcelli, J. 1993. Increased testis growth and sperm production in adult rats following transient neontal goitrogen treatment: Optimization of the prophylthiouracil dose and effects of methimazole. *J. Reprod. Fert.*, **97**: 493-499.

Cooke, P.S., Zhao, YI-D. and Bunick, D. 1994. Triiodothyronine inhibits proliferation and stimulates differentiation of cultured neonatal Sertoli cells: Possible mechanism for increased adult testis weight and sperm production induced by neonatal goitrogen treatment. *Biol. Reprod.*, **51**: 1000-1005.

Costello, L.C. and Franklin, R.B. 1994. Effect of prolactin on the prostate. *Prostate*, **24**: 162-166.

Cunha, G.R., Donjacour, A.A., Cooke, P.S., Mee, S., Bigsby, R.M., Higgins, S.J. and Sugimura, Y. 1987. The endocrinology and developmental biology of the prostate. *Endocr. Rev.*, **8**: 338-362.

Cunha, G., Cooke, P., Bigsby, R. and Brody, J. 1991. Ontogeny of sex steroid receptors in mammals. In: *Nuclear Hormone Receptors* (M. Parker, ed.), Academic Press, London, pp. 235-268.

Cunningham, G.R., Tindall, D.J., Huckins, C. and Means, A.R. 1978. Mechanisms for the testicular hypertrophy which follows hemicastration. *Endocrinology*, **102**: 16-23.

Da Costa, E. and Carlson, R.J. 1933. The effect of feeding desiccated thyroid upon the sexual meturation of the albino rat. *Am. J. Physiol.*, **104**: 247.

David, K., Dingemanse, E., Freud, J. and Laqueur, E. 1935. Über Krystallinisches Mannliches Hormon aus Hoden (Testosteron), Wirksamerals aus Harn Oder aus Cholesterin Beteetes Androsteron. *Z. Physiol. Chem.*, **233**: 281.

de Franca, L.R., Hess, R.A., Cooke, P.S. and Russel, L.D. 1995. Neonatal hypothyroidism causes delayed Sertoli Cell maturation in rats treated with propylthiouracil: Evidence that the Sertoli Cell controls testis growth. *Anat. Rec.*, **242**: 57-69.

de Krester, D.M., Risbridger, G.P., Druminoid, A.E., Gonzales, G. and Sun, Y.T. 1991. Paracrine mechanisms in the regulation of testicular functions. In: *Growth factors in fertility regulation*, (F.P. Haseltine and J.K. Findlay, eds.), Cambridge University Press, Cambridge, pp. 143-156.

De Lahunty, G., Bauer, G. Prack. M. and de Vlaming, V.L. 1978. Effects of pinealectomy and melatonin treatment on liver and plasma metabolites in the gold fish, *Carassius auratus*. *Gen. Comp. Endocrinol.*, **35**: 99-109.

Del Rio, A.G., Valdez Toledo, C.L. and Quiros, M.C. 1979. Thyroid gland and epididymal function in rats-Histoglogical study. *Arch. Androl*, **3**: 19.

Dela Balze, F.A., Arrillaga, F., Mancini, R.E., Janches, M., Davidson, D.W. and Gurtman, A.I. **1962**. Male hypogonadism in hypothyroidism: A study of six cases. *J. Clin. Endocrinol Metab.*, **22**: 212-222.

De Visscher, M. and Inglebleek, Y. 1980. Hypothyroidism. In: *The Thyroid Gland*, (M. De Visscher, ed.), Raven Press, New York, pp. 377-412.

Dorrington, J.H., Fritz, I.B. and Armstrong, D.T. 1978. Control of testicular estrogen synthesis. *Biol. Reprod.*, **18**: 55-64.

Dubois, J.D. and Dussault, J.H. 1977. Ontogenesis of thyroid function in the neonatal rat. Thyroxine (T_4) and Triiodothyronine (T_3) production rates. *Endocrinology*, **101**: 435-441.

Dufau, M.L., de Kretser, D.M. and Hudson, B. 1971. Steroid metabolism by isolated rat seminiferous tubules in tissue culture. *Endocrinology*, **88**: 825-832.

Dussault, J.H. and Labrie, F. 1975. Development of the hypothalamic-pituitary-thyroid axis in the neonatal rat. *Endocrinology*, **97**: 1321-1324.

Dussault, J.H., Coulombe, P. and Walker, P. 1982. Effects of neonatal hyperthyroidism on the development of the hypothalamic-pituitary-thyroid axis in the rat. *Endocrinology*, **110:** 1037-1042.

Ebling, F.J.P. and Foster, D.L. 1989. Pineal melatonin rhythms and the timing of puberty in mammals. *Experentia*, **45**: 946-954.

Ellis, G.B., Losee, S.H. and Turek, F.W. 1981. Pinealectomy abolishes the short-photoperiod-induced attenuated castration response in male golden hamsters. In: *Pineal Function.* Chap. 11, (C.D., Matthews and R.F. Seamark, eds.), Elsevier North-Holland, New York, pp. 87-94.

Fagilia, G., Fonzo, D., Ambrosi, B., Gaggini, M., Gallone, G., Moriondo, P., Travaglini, P. and Elli, R. 1980. Prolactin and hypothalamic-pituitary-testicular function in men. In: *Endocrinology* (I.A. Cumming, J.W. Funder and F.A.O. Mendelsohn, eds.)[Proc. VI Internat. Congress Endocr., Melbourne], Austr. Acad. Sci., Canberra, pp. 198.

Fiske, C.H. and SubbaRow, Y. 1925. The colorimetric determination of phosphorous. *J. Biol. Chem.*, **66**: 375-400.

Fouquet, J.P. and Guha, S. 1969. Glycogen, phosphorylase and glycogen synthetase in hamster testis during postnatal development. *J. Reprod. Fert.*, **19**: 455-464.

Franks, R.C. and Stempfel, R.S. 1963. Juvenile hypothyroidism and precocious testicular maturation. *J. Clin. Endocrinol Metab.*, **23**: 850-810.

Free, M.J. 1970. Carbohydrate metabolism in the testis. In: *The Testis* (A.D. Johnson, W.R. Gomes and N.L. Vandemark, eds.), Vol.11. Biochemistry, Academic Press, New York and London, pp. 125-292.

Freinkel, N. 1980. Of pregnancy and progeny. *Diabetes*, **29**: 1023.

Glass, J.D. and Lynch, G.R. 1983. Melatonin: Identification of sites of antigonadal action in mouse brain. *Science*, **214**: 821-823.

Goldman, B., Hall, V., Hollister, C., Reppert, S., Roychoudhury, P., Yellon, S. and Tamarkin, L. 1981. Diurnal changes in pineal melatonin content in four rodent species: Relationship to photoperiodism. *Biol. Reprod.*, **24**: 778-783.

Greep, R.O. 1961. Physiology of the anterior hypophysis in relation to reproduction. In: *Sex and Internal Secretions* (W.C. Young, ed.), Vol. 1., Williams & Wilkins, Baltimore, Maryland, pp. 240.

Greep, R.O., Fevold, H.L. and Hisaw, F.L. 1936. Effects of two hypophyseal gonadotrophic hormones on the reproductive system of the male rat. *Anat. Record.*, **65**: 261.

Greep, R.O. and Fevold, H.L. 1937. The spermatogenic and secretory function of the gonads of hypophysectomized adult rats treated with pituitary FSH and LH. *Endocrinology*, **21**: 611.

Grizard, G., Fournet, M., Rigaudiere, N., Lambard-Vigon, N. and Grizard, J. 1991. Insulin binding to Leydig cells and insulin levels in testicular fluid at different stages of development in the rat. *J. Endocrinol.*, **128**: 375-381.

Grootegoed, J.A. and Den Boer, P.J. 1990. Energy metabolism of spermatids: A review. In: *Scientific basis of fertility regeneration: Cellular and molecular events in spermatogenesis* (D.W. Hamilton and G.M.H. Waites, eds.), Cambridge University Press, Cambridge, pp. 193-216.

Gunaga, K.P., Rao, M.C., Sheth, A.R. and Rao, S.S. 1972. The role of glycogen during the development of the rat testis and prostate. *J. Reprod. Fert.*, **29**: 157-162.

Hall, T.R., Cheung, A. and Harver, S. 1986. Serotoninergic inhibition of LH Secretion in the domestic fowl. *J. Endocrinol.*, **11**: 239-244.

Hammet, F.S. 1923. Studies of the thyroid apparatus. *Am. J. Anat.*, **32**: 27.

Hardy, M.P., Zirkin, B.R. and Ewing, L.L. 1989. Kinetic studies on the development of the adult population of Leydig cells in the testes of the pubertal rat. *Endocrinology*, **124**: 762-770.

Harper, A.E. 1960. Glucose-6-phosphatase in enzymic analysis (Bergmeyer Hans-Ulrich, eds.), Academic Press, New York, pp. 758-792.

Heldmaier, G. and Lynch, G.R. 1986. Pineal involvement in thermoregulation and acclimatization. *Pineal Res. Rev.*, **4**: 97-139.

Hemady, Z.S., Siler-Khodr, T.M. and Najjar, S. 1978. Precocious puberty in juvenile hypothyroidism. *J. Pediatr.*, **92(1)**: 55-59.

Hers, H.G. 1976. The control of glycogen metabolism in liver. *Annu. Rev. Biochem.*, **45**: 1667.

Hess, R.A., Cooke, P.S., Bunick, D. and Kirby, J.D. 1993. Adult testicular enlargement induced by neonatal hypothyroidism is accompanied by increased Sertoli and germ cell numbers. *Endocrinology*, **132**: 2607-2613.

Hoffman, K. 1973. Pineal involvement in the photoperiodic control of reproduction and other functions in the Djungarian hamster *Phodopus sungorus*. In: *The Pineal Gland.* Chap. 4., (R.J. Reiter, ed.), Vol. II, Reproductive Effects. CRC Press, Boca Raton, pp : 45-102.

Hopwood, N.J., Lockhart, L.H. and Bryan, G.T. 1974. Acquired hypothyroidism with muscular hypertrophy and precocious testicular enlargement. *J. Pediatr.*, **85(2)**: 233-236.

Husmann, D., Mc Phaul, M. and Wilson, J. 1991. Androgen receptor expression in the developing rat prostate is not altered by castration, flutamide, or suppression of the adrenal axis. *Endocrinology*, **128**: 1902-1906.

Jacquot, R. 1959. Recherches sur le controle endocrinien de l'accumulation de glycogene dans le foie, chez le foetus de rat. *J. Physiol* (Paris), **51:** 655.

Jannini, E.A., Olivieri, M., Francavilla, S., Gulino, A., Ziparo, E. and D'Armiento, M. 1990. Ontogenesis of the nuclear 3,5,3'-truodothyronine receptor in the rat testes. *Endocrinology*, **126**: 2521-2526.

Jannini, E.A., Ulisse, S., Piersanti, D., Carosa , E., Muzi, P., Lazar, J. and D' Armiento, M. 1993. Early thyroid hormone treatment in rats increases testis size and germ cell number. *Endocrinology*, **132(6)**: 2726-2728.

Jannini, E.A., Ulisse, S. and D'Armiento, M. 1995. Thyroid hormone and male gonad function. *Endocr. Rev.*, **16(4)**: 443-459.

Jegou, B. 1993. The Sertoli-Germ Cell communication network in mammals. *Int. Rev. Cytolo.*, **147**: 25-96.

Jiang, F.X., Temple-Smith, P. and Wreford, N.G. 1994. Postnatal differentiation and development of the rat epididymis: A stereological study. *Anat. Rec.*, **238**: 191-198.

Johnston, P.G., Michael, B. and Zucker, I. 1982. Photoperiodic inhibitor of testicular development is mediated by the pineal gland in white-footed mice (*Peromyseus leucopus*). *Biol. Reprod.*, **26 (4)**: 597-602.

Jones, G.E.S., Delfs, E. and Foote, E.G. 1946. The effect of thiouracil hypothyroidism on serum LH and FSH levels in intact and gonadectomized male and female rats. *Endocrinology*, **38**: 337.

Joseph, J. and Ramachandran, A.V. 1992. Alterations in carbohydrate metabolism by exogenous dexamethasone and corticosterone in post-hatched white leghorn chicks. *Brit. Poul. Sci.*, **33**: 1085-1093.

Joyce, K.L., Porcelli, J. and Cooke, P.S. 1993. Neonatal goitrogen treatment increases adult testis size and sperm production in the mouse. *J. Androl.*, **14:** 448-455.

Jutte, N.H.P.M., Jansen, R., Grootegoed, J.A., Rommerts, F.F.G. and van der Molen, H.J. 1983. FSH stimulation of the production of pyruvate and lactate by rat Sertoli cells may be involved in hormonal regulation of spermatogenesis. *J. Reprod. Fert.*, **68**: 219-226.

Jutte, N.H.P.M., Grootegoed, J.A., Rommerts, F.F.G. and van der Molen, H.J. 1981. Exogenous lactate is essential for metabolic activities in isolated rat spermatocytes and spermatids. *J. Reprod. Fert.*, **62**: 399-405.

Kalland, G.A., Vera, A., Peterson, M. and Swerdloff, R.S. 1978. Reproductive hormonal axis of the male rats in experimental hypothyroidism. *Endocrinology*, **102**:476-484.

Kamberi, I.A., Mical, R.S. and Porter, J.C. 1971. Effects of melatonin and serotonin on the relealse of FSH and prolactin. *Endocrinology*, **88**: 1288-1293.

Kaplanski, J. and Ronen, J. 1986. Effect of neonatal pinealectomy on circadian periodicity of adrenocortical activity. *J. Neural. Transm.*, **66**: 59-67.

Karkum, J. and Mukharjee, A.T. 1967. Effect of prolonged hypothyroidism on reproductive function of male albino rats. *Indian J. Exp. Biol.*, **5**:9.

Kawai, Y. and Arinze, I.J. 1981. Activation of glycogenolysis in neonatal liver. *J. Biol. Chem.*, **256(2)**: 853-858.

Keeney, D.S., Sprando, R.L., Robaire, B., Zirkin, B.R. and Ewing, L.L. 1990. Reversal of Long-term LH deprivation on testosterone secretion and Leydig cell volume, number and proliferation in adult rats. *J. Endocrinol.*, **127**: 47-58.

Kellog, D.A., and Glenner, G.G. 1966. Histochemical localization of human term placental 17ß-estradiol dehydrogenase reaction. *Nature*, **187**: 763.

Kerr, J.B., Maddocks, S. and Sharpe, R.M. 1992. Testosterone and FSH have independent, synergistic and stage-dependent effects upon spermatogenesis in the rat testis. *Cell Tissue Res.*, **268**: 179-189.

Jones, G.E.S., Delfs, E. and Foote, E.G. 1946. The effect of thiouracil hypothyroidism on serum LH and FSH levels in intact and gonadectomized male and female rats. *Endocrinology*, **38**: 337.

Joseph, J. and Ramachandran, A.V. 1992. Alterations in carbohydrate metabolism by exogenous dexamethasone and corticosterone in post-hatched white leghorn chicks. *Brit. Poul. Sci.*, **33**: 1085-1093.

Joyce, K.L., Porcelli, J. and Cooke, P.S. 1993. Neonatal goitrogen treatment increases adult testis size and sperm production in the mouse. *J. Androl.*, **14:** 448-455.

Jutte, N.H.P.M., Jansen, R., Grootegoed, J.A., Rommerts, F.F.G. and van der Molen, H.J. 1983. FSH stimulation of the production of pyruvate and lactate by rat Sertoli cells may be involved in hormonal regulation of spermatogenesis. *J. Reprod. Fert.*, **68**: 219-226.

Jutte, N.H.P.M., Grootegoed, J.A., Rommerts, F.F.G. and van der Molen, H.J. 1981. Exogenous lactate is essential for metabolic activities in isolated rat spermatocytes and spermatids. *J. Reprod. Fert.*, **62**: 399-405.

Kalland, G.A., Vera, A., Peterson, M. and Swerdloff, R.S. 1978. Reproductive hormonal axis of the male rats in experimental hypothyroidism. *Endocrinology*, **102**:476-484.

Kamberi, I.A., Mical, R.S. and Porter, J.C. 1971. Effects of melatonin and serotonin on the relealse of FSH and prolactin. *Endocrinology*, **88**: 1288-1293.

Kaplanski, J. and Ronen, J. 1986. Effect of neonatal pinealectomy on circadian periodicity of adrenocortical activity. *J. Neural. Transm.*, **66**: 59-67.

Karkum, J. and Mukharjee, A.T. 1967. Effect of prolonged hypothyroidism on reproductive function of male albino rats. *Indian J. Exp. Biol.*, **5**:9.

Kawai, Y. and Arinze, I.J. 1981. Activation of glycogenolysis in neonatal liver. *J. Biol. Chem.*, **256(2)**: 853-858.

Keeney, D.S., Sprando, R.L., Robaire, B., Zirkin, B.R. and Ewing, L.L. 1990. Reversal of Long-term LH deprivation on testosterone secretion and Leydig cell volume, number and proliferation in adult rats. *J. Endocrinol.*, **127**: 47-58.

Kellog, D.A., and Glenner, G.G. 1966. Histochemical localization of human term placental 17ß-estradiol dehydrogenase reaction. *Nature*, **187**: 763.

Kerr, J.B., Maddocks, S. and Sharpe, R.M. 1992. Testosterone and FSH have independent, synergistic and stage-dependent effects upon spermatogenesis in the rat testis. *Cell Tissue Res.*, **268**: 179-189.

Kharroubi, A. and Slaunwhite, Jr. W.R. 1984. Hormonal regulation of prolactin receptors in male rat target tissues: The effect of hypothyroidism and adrenalectomy. *Endocrinology*, **115**: 1283-1288.

Kieffer, J.D, Mover, H., Federico, P. and Maloof, F. 1976. Pituitary-thyroid axis in neonatal and adult rats: Comparison of the sexes. *Endocrinology*, **98**: 295-304.

Kinson, G.A. 1976. Pineal factors in the control of testicular functions. *Adv Sex Hormone Res.*, **20**: 87-137.

Kinson, G.A. and Peat, F. 1971. The influence of illumination, melatonin and pinealectomy on testicular function in the rat. *Life Sci.*, **10**: 259-269.

Kinson, G.A. and Robinson, S. 1970. Gonadal function of immature male rats subjected to light restriction, melatonin administration and the removal of the pineal gland. *J. Endocrinol.*, **47**: 391-392.

Kinson, G.A., Singer, B. and Grant, L. 1968. Adrenocortical hormone secretion at various time intervals after pinealectomy in the rat. *Gen. Comp. Endocrinol.*, **10**: 447-449.

Kinson, G.A., Wahid, K. and Singer, B. 1967. Effect of chronic pinealectomy on adrenocortical hormone secretion rates in normal and hypertensive rats. *Gen. Comp. Endocrinol.*, **8**: 445-454.

Kirby, J.D., Jetton, A.E., Cooke, P.S., Hess, R.A., Bunick, D., Auckland, J.F., Turek, F.W. and Schwartz, N.B. 1992. Developmental hormonal profiles accompanying the neonatal hypothyroidism-induced increase in adult testicular size and sperm production in the rat. *Endocrinology*, **131**: 559-565.

Kitay, J.I. 1967. Possible functions of the pineal gland. In: *Neuroendocrinology*, Chap. 32. (L. Martini and W.F. Ganong, eds.), Academic Press, New York, pp. 641-664.

Kitay, J.I. and Altschule, N.D. 1954. *The pineal gland.* Harvard University Press, Cambridge (as cited by Reiter R.J. 1981)

Kugler, J.A. and Huseman, C.A. 1983. Primary hypothyroidism of childhood: Evaluation of the hypothalamic-pituitary gonadal axis before and during L-thyroxine replacement. *Clin. Endocrinol.*, **19(2)**: 213-222.

Lang, U., Aubert, M.L., Bradtke, J.C. and Sizonenko, P.C. 1982. Circadian changes in sensitivity of the melatonin inhibitory action on pubertal development of the male rat. **Abstr. 989**. *64th Annu. Meet. Endocrine Society*, San Francisco.

Lang, U., Aubert, M.L., Conne, B.S., Bradtke, J.C. and Sizonenko, P.C. 1983. Influence of exogenous melatonin on melatonin secretion and on the neuroendocrine reproductive axis of intact male rats during sexual maturation. *Endocrinology*, **112**: 1578-1584.

Lang, U., Aubert, M.L., Rivest, R.W., Bradtke, J.C.V. and Sizonenko, P.C. 1984. Daily afternoon administration of melatonin does not irreversibly inhibit sexual maturation in the male rat. *Endocrinology*, **115**: 2303-2310.

Lang, U., Rivest, R.W., Schlaepfer, L.V., Bradtke, J.C., Aubert, M.L. and Sizonenko, P.C. 1984. Diurnal rhythm of melatonin action on sexual maturation of male rats. *Neuroendocrinology*, **38**: 261-268.

Laron, Z., Karp, M. and Dolberg, L. 1970. Juvenile hypothyroidism with testicular enlargement. *Acta Paediat. Scand.*, **59**: 317-322.

Leiderman, B. and Mancini, R.E. 1969. Glycogen content in the rat testis from postnatal to adult ages. *Endocrinology*, **85**: 607-609.

Lewinski, A. 1986. Evidence for pineal gland inhibition of thyroid growth: Contribution to the hypothesis of a negative feedback between the thyroid and the pineal. *Adv. Pineal Res.*, **1**: 167-176.

Limonta, P., Dondi, D., Maggi, R., Martini, L. and Piva, F. 1988. Effects of aging on pituitary and testicular luteinising hormone releasing hormone receptors in the rat. *Life Sci.*, **42**: 335-342.

Linda, Y.J. 1981. The pineal gland as a modulator of the adrenal and thyroid axis. In: *The Pineal Gland*, (R.J. Reiter, ed.), vol. III, Extra reproductive effects, C.R.C. Press Inc., Boca Raton, Florida, pp. 107-152.

Longcope, C. 1986. The male and female reproductive system. In: *Thyroid* (S.H. Ingbar and L.E. Braverman, eds.) Werner's, J.B. Lippincott company, Philadelphia, pp. 920-930.

Lostroh, A.J. 1963. Effect of follicle-stimulating hormone and interstitial cell-stimulating hormone or spermatogenesis in Long-Evans rats hypophysectomized for six months. *Acta Endocrinol.*, **43**: 592.

Lostroh, A.J., Johnson, R. and Jordan, C.W., Jr. 1963. Effect of ovine gonadotrophins and antiserum to interstitial cell-stimulating hormone on testis of the hypophysectomized rat. *Acta Endocrinol.*, **44**: 536.

Malbon, C.C. and Campbell, R. 1982. Thyroid hormone administration *in vivo* regulates the activity of hepatic glycogen phosphorylase phosphatase. *Endocrinology*, **115(6)**: 681-686.

Maqsood, M. 1951. Influence of thyroid status on spermatogenesis. *Science*, **114**: 693.

Margolis, R.N. 1983. Regulation of hepatic glycogen metabolism in pre and post-natal rats. *Endocrinology*, **113:** 893-902.

Martin, C.R. 1985. Thyroid hormones, thyrotropin, and thyrotropin releasing hormone. In: *Endocrine Physiology*. Oxford University Press, Oxford, pp. 745-784.

Martin, C.R. 1985. Growth hormones and somatomedins. In: *Endocrine Physiology*. Oxford University Press, Oxford, pp. 785-814.

McCormick, K.L., Susa, J.B., Widness, J.A., Singer, O.B., Adamsons, K. and Schwartz, R. 1979. Chronic hyperinsulinemia in the fetal rhesus monkey. Effect on hepatic enzymes active in lipogenesis and carbohydrate metabolism. *Diabetes*, **28:** 1064.

McLachlan, R.I., Wreford, N.G., Ó Donnell, L., de Kretser, D.M. and Robertson, D.M. 1996. The endocrine regulation of spermatogenesis: independent roles for testosterone and FSH. *J.Endocrinol.*, **148**: 1-9.

Meachem, S.J., McLachlam, R.I., de Kretser, D.M., Robertson, D.M. and Wreford, N.G. 1996. Neonatal exposure of rats to recombinant follicle stimulating hormone increases adult Sertoli and spermatogenic cell numbers. *Biol. Reprod.*, **54**: 36-44.

Mehan, S.P., Asnani, M.V. and Ramchandran, A.V. 1989. Vitamin A deficiency induced histological and histochemical alterations in the testis of rats. *Nutrition Res.*, **9**: 1381-1396.

Meisami, E., Najafi, A. and Timiras, P.S. 1994. Enhancement of seminiferous tubular growth and spermatogenesis in testes of rats recovering from early hypothyroidism: a quantitative study. *Cell Tissue Res.*, **275**: 503-511.

Meisami, E., Sendera, T.J. and Clay, L.B. 1992. Paradoxical hypertrophy and plasticity of the testis in rats recovering from early thyroid deficiency: a growth study including effects of age and duration of hypothyroidism. *J. Endocrinol.*, **135**: 495-505.

Menahan, L.A. and Wieland, O.H. 1969. The role of endogenous lipid in gluconeogenesis and ketogenesis of perfused rat liver. *Eur. J. Biochem.*, **10**: 188.

Motta, M., Fraschini, F. and Martini, L. 1967. Endocrine effects of pineal gland and of melatonin. *Proc. Soc. Expt. Med.*, **126**: 431-435.

Niles, L.P., Brown, G.M. and Grota, L.J. 1977. Endocrine effects of the pineal gland and neutralization of circulating melatonin and N-Acetyl serotonin. *Can. J. Phys. Pharmacol.*, **55**: 537-544.

Nir, I. and Hirschmann, N. 1978. The effect of thyroid hormones on rat pineal indoleamine metabolism *in vitro*. *J. Neurol. Transmission*, **42**: 117-126.

Nir, I., Schmidt, U., Hirschmann, N. and Sulman, F.G. 1971. The effect of pinealectomy on rat plasma corticosterone levels under various conditions of light. *Life Sci.*, **10:** 317-324.

Odell, W.D., Swerdloff, R.S., Bain, J., Wallesen, F. and Grover, P.K. 1974. The effect of sexual maturation on testicular response to LH stimulation of testosterone secretion in the intact rat. *Endocrinology*, **95**: 1380.

Ogle, T.F. and Kitay, J.I. 1977. Effects of melatonin and aqueous pineal extract on adrenal secretion of reduced steroid metabolities in female rats. *Neuroendocrinology,* **23**: 113-120.

Oppenheimer, J.H. 1983. The nuclear receptor-triiodothyronine complex: relationship to thyroid hormone distribution, metabolism and biological origin. In: *Molecular Basis of Thyroid Hormone Action* (J.H. Oppenheimer and H.H. Samuel, eds.). Academic Press, New York, pp. 1-34.

Oppenheimer, J.H., Schwartz, H.L., Surks, M.I., Koerner, D. and Dillmann, W.H. 1976. Nuclear receptors and the initiation of thyroid hormone action. *Rec. Prog. Horm. Res.*, **32**: 529-565.

Padron, F., Garcia-Duran, S., Obregon, M.J., Morreale de Escobar, G. and Escobar del Rey, F. 1981. Specific uptake of human growth hormone by the liver of severely hypothyroid rats. *J. Endocr. Invest.*, **4**:119-123.

Palmero, S., Benahmed, M., Morera, A.M., Trucchi, P. and Fugassa, E. 1992. Identification of nuclear tri-iodothyronine receptors in sertoli cells from immature piglet testes. *J. Mol. Endocrinol.*, **9**: 55-59.

Palmero, S., de Marchis, M., Gallo, G. and Fugassa, E. 1989. Thyroid hormone affects the development of Sertoli cell function in the rat. *J. Endocrinol.*, **123**: 105-111.

Palmero, S., Prati, M., Barreca, A., Minnto, F., Giordano, G., and Fugassa, E. 1990. Thyroid hormone stimulates the production of insulin like growth factor-I (IGF-I) by rat Sertoli cells. *Mol. Cellu. Endocrinol.*, **68**: 61-65.

Palmero, S., Prati, M., Bolla, F. and Fugassa, E. 1995. Tri-iodothyronine directly affects rat Sertoli cell proliferation and differentiation. *J. Endocrinol.*, **145**: 353-362.

Palmero, S., Prati, M., DeMarco, P., Trucchi, P. and Fugassa, E. 1993. Thyroidal regulation of nuclear tri-idothyronine receptors in the developing rat testis. *J. Endocrinol* ., **136**: 277-282.

Pang, S.F., Tang, F. and Tang, P.L. 1984. Negative corelation of age and the levels of pineal melatonin, pineal N-acetylserotonin, and serum melatonin in male rats. *J. Exp. Zool.*, **229**: 41-47.

Panno, M.L., Beraldi, E., Pezzi, V., Salerno, M., De Luca, G., Lanzino, M., Le Pera, M., Sisci, D., Prati, M., Palmero, S., Bolla, E., Fugassa, E. and Ando, S. 1994. Influence of thyroid hormone on androgen metabolism in peripubertal rat Sertoli cells. *J. Endocrinol.*, **140**: 349-355.

Panno, M.L., Sisci, D., Salerno, M., Lanzino, M., Pezzi, V., Morrone, E.G., Mauro, L., Palmero, S., Fugassa, E. and Ando, S. 1996. Thyroid hormone modulates androgen and oestrogen receptor content in the Sertoli cells of peripubertal rats. *J. Endocrinol.*, **148**: 43-50.

Patel, C.D., Asnani, M.V., Ramachandran, A.V. and Shah, R.V. 1983. Seasonal variations in certain blood parameters in normal and pinealectomised Feral Blue Rock pigeon, *Columba livia* . *J. Anim. Morphol. Physiol.*, **30**: 208-216.

Patel, C.D., Mehan, S.P., Shah, R.V. and Ramachandran, A.V. 1988. Seasonal alterations in the glycogen content of liver, muscle and gonads and blood glucose level in intact and pinealectomised wild pigeons, *Columba livia. Comp. Endocrinol.,* (Life Sci. Adv.), **7**: 75-79.

Patel, C.S. 1993. Pineal, pineal indoles and photoperiodism in relation to seasonal reproductive functions and metabolic physiology of male feral blue rock pigeons, *Columba livia.* A Ph.D. Thesis submitted to M.S. University of Baroda, Baroda, Gujarat, India.

Patel, M.M. and Ramachandran, A.V. 1989. Seasonal alterations in glucagon and adrenalin responses in normal and pinealectomised wild pigeons, *Columba livia. Indian J. Exp. Biol.*, **27**: 412-416.

Patel, M.M. and Ramachandran, A.V. 1992 a. Time of administration of melatonin and the effects on organ weights and metabolic physiology in preweanling rat neonates. *J. Reprod. Biol. Comp. Endocrinol.*, **4(2)**: 63-70.

Patel, M.M. and Ramachandran, A.V. 1992 b. *In vitro* influence of hormones on transport of glucose and glycogen in liver and muscle of pinealectomised pigeons, *Columba livia* (Gmelin). *Indian J. Exp. Biol.*, **30**: 211-213.

Patel, M.M. and Ramachandran, A.V. 1993. Para-chlorophenylalanine induced alterations in organ weights and metabolic physiology in preweanling rat neonates. *J. Reprod. Biol. Comp. Endocrinol.*, **5 (2)**: 68-74.

Pescovitz, O.H., Srivastava, C.H., Breyer, P.R. and Monts, B.A. 1994. Paracrine control of spermatogenesis. *Trends Endocrinol Metab.*, **5:** 126-131.

Pévet, P. 1983. The 5-methoxyindoles different from melatonin: Their effects on the sexual axis. In: *The Pineal gland and its endocrine role* (J. Axelrod, F. Fraschini. and G.P. Velo, eds.), Plenum Press, New York and London, pp. 331-348.

Pévet, P. 1985. 5-methoxyindoles, Pineal and seasonal reproduction : A new approach. In: *The Pineal gland: Current state of pineal research* (B. Mess; C.S. Ruzsas; L. Tima, and P. Pévet, eds.), Elsevier Science publishers, Amsterdam, pp. 163-186

Pitis, M.A. and Maya, S. 1969. The action of the pineal gland on the compensatory hyperplasia in mature rats. *Rev. Roum. Endocrinol.*, **6**: 209-213.

Prins, G.S. and Birch, L. 1995. The developmental pattern of androgen-receptor expression in rat prostate lobes is altered after neonatal exposure to estrogen. *Endocrinology*, **136**: 1303-1314.

Quay, W.B. 1970. Endocrine effects of mammalian pineal. *Am. Zool.*, **10**: 237-246.

Raheja, K.L. and Linscheer, W.G. 1978. Effect of dietary composition on liver glycogen accumulation and lipid metabolism in the hypothyroid chick (*Gallus domesticus*). *Comp. Biochem. Physiol.*, **61A**: 31-34.

Ramachandran, A.V. and Patel, M.M. 1987. Seasonal alterations in carbohydrate metabolism as revealed by tissue glycogen contents and blood glucose levels of normal and pinealectomised domestic pigeons, *Columba livia* (Gmelin). *Monitore zool. ital.* (N.S.), **21**: 11-19.

Ramachandran, A.V. and Patel, M.M. 1989. Seasonal differences in glucose tolerance and insulin response of pinealectomised pigeons (*Columba livia*). *J. Pineal Res.*, **6:** 209-219.

Ramachandran, A.V., Patel, M.M. and Patel, C.S. 1996. Effects of pineal indoles and parachlorophenylalanine on seasonal reproduction in the pigeon. *J. Exp. Biol.*, **199**: 793-800.

Reiter, E., McNamara, M., Closset, J. and Hennen, G. 1995a. Expression and functionality of luteinizing hormone/chorionic gonadotropin receptor in the rat prostate. *Endocrinology*, **136**: 917-923.

Reiter, E., Kecha, O., Henny, B., Lardonois, S., Klug, M., Bruyninx, M., Closset, J. and Hennen, G. 1995b. Growth hormone directly affects the function of the different lobes of the rat prostate. *Endocrinology*, **136**: 3338-3345.

Reiter, E., Lardinois, S., Klug, M., Sente, B., Hennuy, B., Bruynix, M., Closset, J. and Mennen, G. 1996. Androgen-independent effects of prolactin on the different lobes of the immature rat prostate. *Mol. Cell. Endocrinol.*, (in press).

Reiter, R.J. 1973. Pineal control of a seasonal reproductive rhythm in male Golden hamsters exposed to natural daylight and temperature. *Endocrinology*, **92**: 423-430.

Reiter, R.J. 1978. Interaction of photoperiod, pineal and seasonal reproduction as exemplified by findings in the hamster. *Prog. Reprod. Biol.*, **4**: 169-190.

Reiter, R.J. 1980. The pineal and its hormones in the control of reproduction in mammals. *Endocr. Rev.*, **1**: 109-131.

Reiter, R.J. 1981 a. Reproductive effects of the pineal gland and pineal indoles in the Syrian hamster and the albino rat. In: *The Pineal Gland* (R.J. Reiter, ed.), **Vol.II**, Reproductive effects, CRC Press Inc., Boca Raton Florida, pp. 46-81.

Reiter, R.J. 1981 b. Reproductive effects of the pineal gland and pineal indoles in the syrian hamsters and the albino rat. In: *The Pineal gland* (R.J. Reiter, ed.) C.R.C. Press, Boca Raton, Florida, pp. 45-81.

Reiter, R.J. 1981 c. Chronological aspects of the pineal gland. In: *Biological rhythms in structure and functions.* (H.V. Mayersbach; L.E. Scheving and J.R. Pauly, eds.), pp. 223-233.

Reiter, R.J. 1982. Neuroendocrine effects of the pineal gland and of melatonin. In: *Frontiers in Neuroendocrinology.* (W.F. Ganong and L. Martini, eds.), Vol. 7, Raven Press, New York, pp. 287-316.

Reiter, R.J. 1984. Comparison of the effects of ß-adrenergic agents on pineal serotonin N-acetyl transferase activity and melatonin content in two species of hamsters. *J. Pineal Res.*, **1**: 23.

Reiter, R.J., Blask, D.E. and Vaughan, M.K. 1975. A counter antigonadotrophic effect of melatonin in male rats. *Neuroendocrinology*, **19**: 72.

Reiter, R.J., Vaughan, M.K., King, T.S. and Karasek, M. 1985. The mammalian pineal gland: Pharmacologic regulation and physiologic consequences. In: *Handbook of Pharmacologic Methodologies for the study of the Neuroendocrine System,* (R.W. Steger and T.M. Johns, eds.), CRC Press, Boca Raton, Florida, pp. 331-384.

Rivest, R.W., Lang, U., Aubert, M.L. and Sizonenko, P.C. 1985. Daily administration of melatonin delays rat vaginal opening and disrupts the first estrous cycle: evidence that these effects are synchronised by the onset of light. *Endocrinology*, **116**: 779-787.

Rommerts, F.F.G. and Van der Molen, H.J. 1989. Testicular steroidogenesis. In: *The Testis* (H. Burger and de Krester, D., eds.), ed.2 Raven Press, New York, pp. 303-328.

Ruzicka, L. and Wettstein, A. 1935. Über die Kunstliche Herstellung des Testikel-hormons Testosteron (Androsten-3-on-17-ol). *Helv. Chem. Acta.*, **18:** 1264.

Ruzsas, C. and Mess, B. 1987. The role of the pineal body in the adaptive reactions of the thyroid gland and possible involvement of the habenular complex. *Adv. Pineal Res.*, **2**: 155-169.

Saez, J.M. 1994. Leydig cells: Endocrine, Paracrine and Autocrine regulation. *Endocrine Rev.*, **15(6)**: 574-626.

Saez, J.M., Avallet, O., Naville, D., Perrard-Sapori, M.H. and Chatelain, P.G. 1990. Sertoli-Leydig Cell Communications. In: *Ann. NY Acad. Sci.*, New York, pp. 210-231.

Seifter, S., Dayton, S., Novic. and Muntwoyler, E. 1950. The estimation of glycogen with anthrone reagent. *Arch. Biochem.*, **25**: 191-200.

Shannon, J. and Cunha, G. 1983. Autoradiographic localization of androgen binding in the developing mouse prostate. *Prostate*, **4**: 367-373.

Shire, J.G.M. and Bartke, A. 1972. Strain differences in testicular weight and spermatogenesis with special reference to C57BL/10 J and DBA/2 J mice. *J. Endocrinol.*, **55**: 163-171.

Silman, R. 1991. Melatonin and the human govadotrophin-releasing hormone pulse generator. *J. Endocrinol.*, **128**: 7-11.

Simorangkir, D.R., de Kretser, D.M. and Coreford, N.G. 1995. Increased numbers of Sertoli and germ cells in adult rat testis induced by synergistic action of transient neonatal hypothyroidism and neonatal hemicastration. *J. Reprod. Fert.*, **104**: 207-213.

Singh, D. 1993. Pineal-adrenal axis in reproductive functioning and metabolic physiology of birds. A Ph. D. Thesis submitted to M.S. University of Baroda, Baroda, Gujarat, India.

Sisk, C.L., and Turek, F.W. 1982. Daily melatonin injections mimic the short day-induced increase in negative feedback effects of testosterone on gonadotropin secretion in Hamsters. *Biol Reprod.*, **27**: 602-608.

Smelser, G.K. 1939. Testicular function and the action of gonadotropic and male hormones in hyperthyroid male rats. *Anat. Rec.*, **73**: 273.

Snedecor, J.G., Raheja, K.L. and Freedland, R.A. 1972. Effect of a single injection of L-thyroxine on glycogen, and on glycolytic and other enzymes in propylthiouracil-fed cockerels. *Gen. Comp. Endocrinol.*, **18**: 199-209.

Stankov, B. and Reiter, R.J. 1990. Melatonin receptors: Current status, facts and hypothesis. *Life Sci.*, **44**: 971-982.

Stradtman, E.W. 1993. Thyroid dysfunction and ovulatory disorders. In: *Textbook of Reproductive Medicine,* (B.R. Carr, and R.E. Blackwell, eds.), Appleton, Norwalk, CT, pp. 297-321.

Sufi, S.B., Donaldson, A. and Jeffcoate, S.L. 1986. World Health Organization Collaborating Centre for Research and Reference Services in the Immunoassay of hormones in human reproduction. *WHO Reagent Programme: Testorterone assay, Method Manual* 10th ed. pp. 85-97.

Takeda, H. and Chang, C. 1991. Immunohistochemical and *in situ* hybridization analysis of androgen receptor expression during the development of the mouse prostate gland. *J. Endocrinol.*, **129**: 83-89.

Takeda, H., Mizuno, T. and Lasnitzki, K. 1985. Autoradiographic studies of androgen-binding sites in the rat urogenital sinus and postnatal prostate. *J. Endocrinol.*, **104**: 87-92.

Talbert, G.B. 1962. Effect of thyroxine on maturation of the testes and prostate gland of the rat. *Proc. Soc. Exp. Biol. Med.*, **111**: 290.

Tamarkin, L., Lefebvre, N.G., Hollister, C.W. and Goldman, B.D. 1977. Effect of melatonin administered during the night on reproductive function in the Syrian hamster. *Endocrinology*, **101**: 631-634.

Tamarkin, L., Westrom, W.K., Hamill, A.I. and Goldman, B.D. 1976. Effects of melatonin on the reproductive systems of male and female Syrian hamsters: a diurnal rhythm in sensitivity to melatonin. *Endocrinology*, **99**: 1534-1541.

Tata, J., Eruster, L., Lindberg, O., Arrheniers, E., Pedersen, J. and Hedman, R. 1963. The action of thyroid hormones at all the cell level. *Biochem. J.*, **86**: 408.

Thieblot, L. 1960. Effect of the pineal on the genital system (in Polish), *Acta Physiol Polon.*, **11**: 571-590.

Tinely, F. and Warren, L.F. 1919. The morphology and evolutional significance of the pineal body. In: *The Pineal Gland* (R.J. Reiter, ed.), Vol.II, Reproductive effects, CRC Press Inc., Boca Raton Florida, pp. 46-81.

Truex, R.C. and Carpenter, M.B. 1973. *Human Neuroanatomy*, 6th ed., Williams & Wilkins Baltimore.

Türkenkopf, I.J., P.R. and Greenwood, M.R.C. 1982. Development of pancreatic and plasma insulin in prenatal and suckling Zucker rats. *Am J Physiol.*, **242:** E220.

Turner, C.D., and Bagnara, J.T. 1976. *General Endocrinology*, 6th ed., Saunders, Philadelphia.

Underwood, H. 1989. The pineal and melatonin : Regulators of circadian function in lower vertebrates. *Experentia*, **45**: 914-922.

Valenti, S., Guido, R., Giusti, M. and Giordano, G. 1995. In vitro acute and prolonged effects of melatonin on purified rat Leydig cell steroidogenesis and adenosine 3',5'-monophosphate production. *Endocrinology*, **136**: 5357-5362.

Valladares, L.E., Moraga, P., Vera, H., Ronco, A.M. 1992. Leydig cells melatonim - binding sites in the immature rat. *9th International Congress of Endocrinology*, Nice, France, pp. 447 (Abstract).

Valle, L.B.S., Oliveira-filho, R.M., Romaldini, J.H. and Lara, P.F. 1985. Pituitary-testicular axis abnormalities in immature male hypothyroid rats. *J. Steroid Biochem.*, **23 (3)**: 253-257.

Van Haaster, L.H., de Jong, F.H., Docter, R. and de Rooij, D.G. 1992. The effect of hypothyroidism on Sertoli Cell proliferation and differentiation and hormone levels during testicular development in the rat. *Endocrinology*, **131 (3)**: 1574-1576.

Van Haaster, L.H., de Jong, F.H., Docter, R., de Rooji, D.G. 1993. High neonatal triiodothyronine levels reduce the period of sertoli cell proliferation and accelerate tubular lumen formation in the rat testis, and increase serum inhibin levels. *Endocrinology*, **133**: 755-760.

Van der Molen, H., Brinkman, B.O., de Jong, F.H. and Rommerts, F.F.G. 1981. Testicular oestrogens. *J. Endocrinol.*, **88**: 33-46.

Van Wyk, J.J. and Grumbach, M.M. 1960. Syndrome of precocious menstruation and galactorrhea in juvenile hypothyroidism: an example of hormonal overlap in pituitary feedback. *J. Pediatr.*, **57(3)**: 416-435.

Vaughan, M.K., Richardson,, B.A., Johnson, L.Y. Petterborg, L.J., Powands, M.C., Reiter, R.J. and Smith, I. 1983. Natural and synthetic analogues of melatonin and related compounds II. Effect of plasma thyroid hormones and cholesterol levels in male Syrian hamsters. *J. Neural Trans.*, **56**: 279-291.

Verhoeven, G. 1992. Local control systems within the testis. *Bailliere's Clin. Endocrinol. Metab.*, **6(2)**: 313-333.

Vernon, R.G. and Walker, D.G. 1972. Glucose metabolism in the developing rat. Studies *in vivo*. *Biochem. J.*, **127**: 521.

Vilchez-Martinez, J.A. 1973. Study of the pituitary-testicular axis in hypothyroid adult male rats. *J. Reprod Fert.*, **35**: 123-126.

Vriend, J. 1983. Pineal-thyroid interactions. *Pineal Res. Rev.*, **1**: 183-206.

Virend, J. 1991. Melatonin increases the rate of 5-hydroxyindoleacetic acid to serotonin in the hypothalamus and brainstem concurrently with gonadal involution in male syrian hamster. *Can. J. Zool.*, **69**: 1004-1009.

Vollrath, L. 1981. *The Pineal Organ.* Springer-Verlag, Berlin/Heidelberg/New York/Tokyo (as cited by Gupta *et al.*, 1987).

Vornberger, W., Prins, G., Musto, N.A. and Suarez-Quian, C.A. 1994. Androgen receptor distribution in rat testis: New implications for androgen regulation of spermatogenesis. *Endocrinology*, **134**: 2307-2316.

Wakelam, M.J.O. and Walker, D.G. 1981. The separate roles of glucose and insulin in the induction of glucokinase in hepatocytes isolated from neonatal rats. *Biochem. J.*, **196**: 383.

Wattenberg, L.W. 1958. Microscopic histochemical demonstration of steroid 3 ß-ol-dehydrogenase in tissue reaction. *J.Histochem. Cytochem.*, **6**: 225-232.

Weiss, S.R. and Burns, J.M. 1988. The effect of acute treatment with two goitrogens on plasma thyroid hormones, testosterone and testicular morphology in adult male rats. *Comp. Biochem. Physiol.*, **90**: 449-452.

Winckers, P.L.M. and Jacobs, P.H. 1971. Determination of glucose in blood using O-toludine. *Clin. Chim. Acta.*, **34**: 401.

Wortoman, J., Rosner, W. and Dufau, M.L. 1987. Abnormal testicular function in men with primary hypothyroidism. *Am. J. Med.*, **82**: 207-212.

Wurtman, R.J. and Anton-Tay, F. 1969. The mammalian pineal as a neuroendocrine transducer. *Recent. Prog. Horm. Res.*, **25**: 493-522.

Young, W.C., Rayner, B., Petersen, R.R. and Brown, M.M. 1952. The thyroid and reproductive performance in the adult male guinea pig. *Endocrinology*, **51**: 12.